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# LEAVES

***FROM THE***

# TREE OF LIFE

**VEGETARIAN WHOLE FOODS COOKERY AND HEALTH SEMINAR**

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**Note to Reader:**

The information in this book is presented for educational purposes. It is not intended to replace the services of healing professionals for conditions that require them.

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## *Preface*

The authors of this book have endeavored to present to you a simple way to arrange your style of living so that you can prevent many of the chronic degenerative diseases. Our appetites and lethargy have combined to interfere with our having the best of health, considering the bodies that we have inherited. For four thousand years this aging world has been gradually deteriorating because of the washing effect of rainfall. We need the rain to help things to grow. However, the many soluble elements in the soil have gradually been marching off to the lakes and seas. The result has been the deterioration of the plant growth on the land. The prophet describes this in Isaiah 51:6, "The earth shall wax old like a garment, and they that dwell therein shall die in like manner."

We have not helped the situation. Food processors have catered to the whims and tastes of us all and made many quick and fast foods. The natural produce of the field from this deteriorating ground has been considered "raw" material to use to take apart and put money making items into the market. In the process, we have lost much of what the wise Creator had placed in the edible plants for us. We remove twenty or more important constituents, add back six or so items, and say it is "enriched." To keep it from spoiling we put in additives and preservatives rather than to prepare it in a manner that would keep it from getting modified by oxygenation.

But there is hope. If we will but ask, God will give us the desire and the power to correct our faulty appetites and help us learn what is best for our bodies. Let us consider the challenge to avoid foods that some would have us buy for their profit, but would be detrimental to our health.

This book was prepared for the purpose of informing you and other readers about the major laws of health. When these laws are put into practice steadily and faithfully, our wonderfully designed bodies can regain a great measure of our lost health. Cancers can be prevented. The plugging up of our arteries all over our bodies can be reversed. Circulation to our hearts, joints, and brains can be gradually reopened. Our immune system can be strengthened to a remarkable degree.

The Creator has designed the natural produce in such a way as to supply us with wonderful, tasty foods from the farm and gardens. Let us endeavor to build up our soils, grow the best foods that we can, prepare them simply without spices or greases and oils of all kinds, and eat them with relish and thankfulness for all those good things.

Those who have prepared this and similar manuals have observed marked success in their friends who have applied these health principles. No, not every disease can be overcome. We still live on a planet that will need to be recreated. But that will come in time. May God bless you, guide you, and strengthen you as you learn how, and resolve to apply these laws of health.

Milton G. Crane, M.D.
Director of Medical Research
WEIMAR INSTITUTE

## Encouragements

"I am very pleased with the book. It will be a great asset in working with your students, and in presenting seminars. . .

"I know the Lord will bless you with success in making it available to many. I believe it will fill a much needed spot in education of lay persons in the basic laws of health. It is well documented, and very nicely laid out."

Agatha M. Thrash, M.D.
Preventive Medicine
UCHEE PINES INSTITUTE

## *Acknowledgments*

Through various experiences and circumstances the authors have come to appreciate more and more the health principles given by our Creator in His Word; also, the sound principles and guidelines, so in harmony with the Scriptures, recorded in the works by Ellen G. White, well-known Health Educator. As we have shared these principles with others and have seen them reap the benefits of improved health, a desire crystalized to share them on a broader scale through this manual.

The authors gratefully acknowledge the assistance and support of Milton G. Crane, M.D., and Agatha M. Thrash, M.D., FACP, who have taken time from ever busy schedules to review the manuscript, and to share their wisdom and expertise through helpful recommendations and suggestions,--and encouragement. Words cannot fully express our appreciation for their professional insights and their invaluable help.

Many thanks also to our husbands, Ray Heathman and M. G. Tillotson, for their contributions, suggestions, and encouragement as they have worked with us on this project, and to the many others who have offered helpful suggestions and shared recipes.

May this study guide help to awaken in you a desire to more fully understand our Creator's plan for us in a fuller, richer, more joyful life here, in preparation for the future life. Carefully study your needs, and make changes wisely to bring your lifestyle into harmony with the laws of your being.

The late Lee Heathman, co-author of the *Leaves from the Tree of Life, Vegetarian Whole Foods Cookery and Health Seminar Manual*, longed to help others in some special way. In her search for avenues of service she made arrangements to participate as a Observer/Trainee Home Health Counselor for the NEWSTART" program at Weimar Institute in Northern California, (returning several times later for more training). Her enthusiasm for what she learned, experienced, and observed, knew no bounds when she returned to her home in Oregon. She designed a program based on the Weimar NEWSTART" Homestyle program, adapting it to large group presentations. Working with a friend who was already conducting cooking schools in the area, they launched the program in her home church. These were an immediate success,— well attended and greatly appreciated by the attendees.

A year or two later Lee invited Merle and co-author Mildred Tillotson to assist in the program. Merle and Mildred had a long-time interest in the better life-style presented in this program, having earlier attended health classes on the East Coast and making some life-style changes at the time; however, they were impressed by the practical applications of health principles, and the delicious as well as nourishing recipes presented in these classes. Also, after seeing many people experiencing marked improvement in their health, including lowered blood pressure, reduced insulin requirements, abatement of many heart symptoms, and a sparkle returning to the eyes of the attendees, they did not want to miss a seminar.

During the few years the two families were privileged to work together in these cooking and health seminars, they felt a need for a study guide based on the sound nutrition and health counsel given in the writings of Health Educator

Ellen G. White in such books as *Healthful Living, Ministry of Healing,* and *Counsels on Diet and Foods*, as supported by current scientific findings. The *Leaves from the Tree of Life Manual* is the product of this need, and it has been well received in communities where it has been used.

Ray and Lee Heathman have introduced the manual through many successful seminars on the East Coast while their work was centered at Hartland Institute, Rapidan, Virginia, as well as in other parts of our country, and many foreign countries as well. Many others are now conducting seminars in their home areas.

Merle and Mildred Tillotson have continued, with the help of many team members, to present twice-yearly seminars in their home church based on this manual.

Those who engage in this work are twice blessed. Blessed as they share the many practical nutrition and health topics, and blessed as they see marked improvement in both physical and spiritual health of those who attend the seminars and put into practice what they learn.

A companion *Instructor's Manual* is also available, which provides information on how to to present the material, and how to organize a team for a seminar, with job descriptions for team members, and various other worksheets. The motto for the seminar is:

***"Choose Something Better."***

The manuals are available from (request information on quantity discounts):

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For more information concerning the manuals or presenting seminars, contact the Publisher, or:

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# *An Overview*

Much could be said about the health problems facing our Nation, and the world. Not only are health care costs almost out of reach, but the sickness, suffering, and pain experienced by so many should be a matter of deep concern to all.

Many are becoming aware of the fact that something can be done. The original diet and lifestyle given in Eden is gaining the attention of many.

A marked improvement in health is possible for those who will learn and practice the principles of healthful living. This seminar is based on practical, easy to apply principles that promote health, with tasty, nutritious, recipes to support a healthy, active, life.

**MOTTO**

## *CHOOSE SOMETHING BETTER*

**"Something better is the watchword of education, The law of all true living."**
Ellen G. White, *Education,* 96

"It is in these promises that Christ communicates to us His grace and power. They are *leaves from that tree which is 'for the healing of the nations.'"* Revelation 22:2.
Ellen G. White, *Ministry of Healing,* 122

From Eden Lost . . . . . . . . . . . . . . . . . . . To Eden Restored

*"And God said, Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for meat."* *Genesis 1:29*

*"In the midst of the street of it, and on either side of the river, was there the tree of life, which bare twelve manner of fruits, and yielded her fruit every month; and the leaves of the tree were for the healing of the nations."* *Revelation 22:2*

**Health is a wonderful boon to those who possess it, a treasure of greater worth than a limitless bank account. A joy to the owner, and a help to others. It is the only real treasure we have in this life, secondary only to possessing the Pearl of Great Price.**

**Without health, we loose all; and life is a burden. Disease (poor health) is not enjoyable to the sufferer; it also is a burden to those caring for the sufferer. It is a distraction from life's pursuits, and very costly in time and resources. Disease is not normal.**

# The Laws of Life

**"Study that marvelous organism, the human system, and the laws by which it is governed."** **Ellen G. White, *Healthful Living*, 15**

To know and cooperate with the laws of health in order to retain, or regain, health is most important. The study of disease takes a secondary place to the study of the laws of life. To know how to employ every rational means at our disposal in order to avert sickness should be our constant study and goal.

Life's activities are centered in the home. Parents should be an example of good health practices, and should train children from their earliest years to treasure and care for their health that they too will enjoy a fuller, richer, life,--as free from pain and suffering as possible.

**Disease does not come without cause. By a disregard of the laws of health the way is prepared and disease invited. Some of the causes include:**

1. Lack of deep, full inspirations of air which impairs the action of stomach, liver, lungs, and brain.
2. Feebleness and paleness from close confinement indoors.
3. Irregularity in eating, or eating too much or hurriedly, overtaxes the digestive organs,-- and produces impure blood and a feverish state of the system.
4. Inadequate food, in quantity or quality, and poorly cooked food, deprave the blood by weakening the blood-making organs.
5. Eating meat increases ten-fold the liability to take disease.
6. Many become invalids chiefly because the blood does not circulate freely, and the changes so essential for health and life do not take place in this vital fluid.
7. Overtaxing the strength and body reserves not only increases liability of taking cold, but disease can assume dangerous forms under these conditions.
8. Depression, sadness, and gloomines are fruitful causes of disease.

**The object of this Vegetarian Whole Foods Cookery and Health Seminar is to teach principles of healthful living that will give nature a chance to remove and resist disease.**

"There are many ways of practicing the healing art, but there is only one way that Heaven approves. God's remedies are the simple agencies of nature, that will not tax or debilitate the system through their powerful properties. Pure air and water, cleanliness, a proper diet, purity of life, and a firm trust in God, are remedies for the want of which thousands are dying, yet these remedies are going out of date because their skillful use requires work that the people do not appreciate. Fresh air, exercise, pure water, and clean sweet premises. are within the reach of all with but little expense. But drugs are expensive, both in the outlay of means, and the effect produced upon the system."
Ellen G. White, *Healthful Living,* 225

"Nature is a power, but the God of nature is unlimited in power. His works interpret his character. Those who judge him from his handiworks, and not from the suppositions of great men, will see his presence in everything. They behold his smile in the glad sunshine, and his love and care for man in the rich fields of autumn. Even the adornments of the earth as seen in the grass of living green, the lovely flowers of every hue, and the lofty and varied trees of the forest, testify to the tender, fatherly care of our God, and to his desire to make his children happy." *Ibid,* 285

"And so far as possible, all who are seeking to recover health should place themselves amid country surroundings, where they can have the benefit of outdoor life. **Nature is God's physician.** The pure air, the glad sunshine, the flowers and trees, the orchards and vineyards, and the outdoor exercise amid these surroundings, are health-giving, life-giving." Ellen G. White, *Ministry of Healing,* 263

Although **Health Educator Ellen G. White** penned her works about a hundred years ago, her books are recognized today for providing sound principles for diet and healthful living. Dr. Clive McCay, Professor of Nutrition at Cornell University a few years ago, commented:

"In spite of the fact that the works of Mrs. White were written long before the advent of modern scientific nutrition, no better over-all guide is available today." "Finally, one can wonder how to make her teachings more widely known in order to benefit the over-crowded earth that seems inevitable tomorrow with the present rate of increase of the world's population." Clive M. McCay, Ph. D.,
*A Nutrition Authority Discusses Mrs. E. G. White,*
Review and Herald, February 26, 1959

These books are recognized by health educators today as providing the most up-to-date information and guidelines for sound nutrition.

It is not the purpose of this study guide to establish rigid rules for everyone to follow, but to provide basic guidelines and information to aid those seeking to maintain and/or improve their health, to do so. Also, to provide some ideas and suggestions for putting into practice the choice for a better lifestyle.

Yes, study your own needs, and the needs of your family. These may vary depending on the type of activity engaged in, and the the varying climate in your locality. A word of caution: **Avoid extremes!**

**"Pure air,**
**sunlight,**
**abstemiousness,**
**rest,**
**exercise,**
**proper diet,**
**the use of water,**
**trust in divine power,--**
**these are the true remedies.**

Every person should have a knowledge of nature's remedial agencies and how to apply them. . .

The use of natural remedies requires an amount of care and effort that many are not willing to give. Nature's process of healing and upbuilding is gradual, and to the impatient it seems slow. The surrender of hurtful indulgences requires sacrifice. But in the end it will be found that nature, untrammeled, does her work well. Those who persevere in obedience to her laws will reap the reward in health of body and health of mind." Ellen G. White, *Ministry of Healing,* 127, 128

The key topic for each lesson in this Manual is based on one of the above **"true remedies."**

Nutritional and other health information presented with the **key topic** is designed to enhance the understanding, appreciation, and application, of the "**true remedy**."

May the material in this Manual increase your desire to learn more of the wonderful mechanism of the human body, the habitation of the mind and soul. Even though the mysteries of its operation are beyond the scope of human science, much is known of its operation,--enough to challenge our thinking. May this study deepen your desire to preserve this habitation in the best of health, to make possible a more full development of the intellectual, moral, and spiritual powers through the enabling grace of God.

Birds of the air follow laws that govern them. Some observe seasonal changes, migrating from country to country to find a climate suitable to their needs and happiness. Joy and happiness, and increased vigor and vitality, can be ours as we learn to bring our lifestyles into harmony with the laws of our being.

## Choose something better

*I will praise thee; for I am fearfully and wonderfully made: marvellous are thy works; and that my soul knoweth right well.* *Psalm 139:14*

# *N U T R I T I O N . . .*

## *A Science in Value Above all Other Sciences*

Watchword

**Use whole foods as grown**

**"The diet affects both physical and moral health."**
Ellen G. White, *Healthful Living, 76*

"**Grains,**
**fruits,**
**nuts, and**
**vegetables**

**constitute the diet chosen for us by our Creator. These foods, prepared in as simple and natural a manner as possible, are the most healthful and nourishing. They impart a strength, a power of endurance, and a vigor of intellect, that are not afforded by a more complex and stimulating diet."**
Ellen G. White, *Counsels on Diet and Foods,* 313

*In the beginning God created the heaven and the earth.*
*And God said, Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for meat.* *Genesis 1:1,29*

Sometimes we hear the words spoken, "Oh! I'm just a housewife." A person gets the impression that the speaker wishes she had a more challenging position in life. But the work of a housewife in making a house a home is most important. The work of cooking that is included in these responsibilities is an art, and a "science in value above all other sciences." Yet it need not be complicated and time consuming!

**"Cooking. . . is a science in value above all other sciences. Thus God regards the preparation of healthful food. He places a high estimate on those who do faithful service in preparing wholesome, palatable food. . . .This talent should be**

**regarded as equal in value to ten talents; for its right use has much to do with keeping the human organism in health."** ***Ibid.*** **251**

# Why should we choose something better?

Deficiency and infectious diseases have been the main causes of premature death during the past few centuries. With the advent of refined, devitalized foods, degenerative diseases have become the leading causes of premature death.

Of the ten leading causes of death in the United States based on 1987 data, heart diseases, cancers, and strokes, accounted for about two thirds of them. Diet is credited with playing a part in these premature deaths, as well as in deaths from diabetes and atherosclerosis, which account for about another 3% of the ten leading causes of premature deaths.

Although diet is not credited with playing a part in the other five leading causes of death, including pneumonia and influenza, suicide, and chronic liver disease and cirrhosis, it no doubt shares in the responsibility.

Individuals subsisting on devitalized foods, or on a diet with an imbalance of nutrients, and/or consume more than they need (even of good foods) may:

(1) Weaken the immune system so that it may not be able to cope with infectious diseases such as pneumonia and influenza.

(2) Lead to mental depression so that a person feels unable to cope with life.

(3) Overtax the liver, resulting in self poisoning, and various liver diseases.

The cost of all the illness preceding these deaths is measureless when one considers not only the monetary value of skyrocketing health care costs, but also the physical suffering of those who were ill, and the emotional suffering of family and friends.

Malnutrition in its true sense may be experienced in a land of plenty by those who subsist on refined, devitalized, “foodless” foods, and even by consuming an imbalance of whole, unrefined, foods.

The science of nutrition brings into focus the close relationship which exists between food and health of body and mind.

**How encouraging it is to know that degenerative diseases need not destroy us inch by inch; also, even infectious diseases may become much less a part of our experience when the immune system is improved.**

# Yes, it is time to choose something better.

In 1988 the Surgeon General recognized the need for more complex carbohydrates and fiber to be included in the diet, and less of the refined foods, especially fats. In the Summary and Recommendations of the Surgeon General's Report on Nutrition and Health, it is stated in the conclusions that "over-consumption of certain dietary components is now a major concern for Americans. While many food factors are involved, chief among them is the disproportionate consumption of foods high in fats, often at the expense of foods high in complex carbohydrates and fiber that may be more conducive to health.

"Diet has always had a vital influence on health. Until as recently as the 1940's, diseases such as rickets, pellagra, scurvy, beriberi, xerophthalmia, and goiter . . . were prevalent in this country and throughout the world."

The Surgeon General further notes that, "As the diseases of nutritional deficiency have diminished, they have been replaced by diseases of dietary excess and imbalance—problems that now rank among the leading causes of illness and death in the United States, touch the lives of most Americans, and generate substantial health care costs."

Included among the Surgeon General's key recommendations are:

1. Reduce the intake of fat (especially saturated fat) and cholesterol.
   Choose foods relatively low in these substances.
   Use food preparation methods that add little or no fat.

2. Achieve and maintain desirable body weight.
   Choose a dietary pattern consistent with energy expenditure.
   Increase energy expenditure by regular physical activity.

3. <u>Increase the consumption of complex carbohydrate (CHO) and fiber.</u> Increase the use of whole grain foods and cereal products, vegetables (including dried beans and peas), and fruits.

4. <u>Reduce sodium intake.</u> Choose foods relatively low in sodium, and limit the amount of salt added in food preparation and at the table.

5. <u>Sugars.</u> Those vulnerable to dental caries, especially children, should: Limit consumption and frequency of use of foods high in added sugars.

*Summary and Recommendations, The Surgeon General's Report on Nutrition and Health.* pages 2 and 3
U.S. DHHS (PHS) Publication No. 85-50211.
Superintendent of Documents, U.S. Govt. Print Office, Washington D. C., 20402

All would profit by practicing item 5, as the free use of concentrated sugars is damaging to the health in many ways. (See subtopic *Sugar* in Lesson 2.)

Note that the Surgeon General points out that dietary excess and imbalance of nutrients are among the causes of illness and premature death.

# Protective foods are needed in the diet

Dr. Craig notes that, "Typically one-half of the calories in the diet [of the average American] are empty or refined calories that are deficient in vitamins, minerals, and fiber."

Winston J. Craig, Ph.D., R.D., *Nutrition for the Nineties,* 9

He also notes that according to a national survey made by the National Cancer Institute, "almost one-half of all adult Americans ate no fruit or fruit juice, and one-half ate no vegetables. The average person ate [daily] only one serving of fruit and less than 2 servings of vegetables." *Ibid.,* 110, 111

"Several studies have reported a significant protective effect associated with the consumption of fruits and vegetables, and some have shown an increased risk associated with meat consumption." Ellen B,. Gold, Ph.D., and John L. Cameron, M.D., *Chronic Pancreatitis and Pancreatic Cancer,* The New England Journal of Medicine. V328, No. 20, 05/20/93, p. 1485

A wealth of life-sustaining whole foods are available to us,— a variety of fruits and vegetables, whole grains and legumes, nuts and seeds,— that were designed to meet our nutritional needs.

Each nutrient in any one food has its specific function. Some are needed for cell metabolism or as building blocks for cell structures, as raw materials for various products (such as for makng digestive juices, hormones, and good cholesterol); some of the vitamins help preserve fatty acids in foods as well as performing their functions in body cells. This harmonious completeness is lost in processed, refined foods. The addition of preservatives, artificial vitamins, and other additives, compound the nutritional problems.

Some **benefits** to be derived from changing to a well-balanced diet of whole, natural, life-sustaining foods, enhanced even more when all the **true remedies** are included in the lifestyle, are:

Time clock reversed — feel and look younger as aging process is slowed

Energy level increased — less fatigue — better weight management

Increased mental alertness, and clarity of thought

Better ability to cope with stress

Emotions are more stable

General health improved — not prone to degenerative diseases

Immune system strenthened — better resistance to contagious diseases

**The free use of protective foods, such as fruits, vegetables, whole grains, legumes, nuts and seeds, aids in achieving optimal health.**

# What, then, is food?

Food may be defined as any substance which, when eaten and absorbed into the system:

Furnishes force and heat to the body;

Builds cells or repairs damaged ones;

*Without causing injury.*

## What is the difference between carbohydrates, proteins, and fats?

**Carbohydrates,** as the name indicates, are compounds of carbon with "hydrates" (water), or hydrogen and oxygen.

**Fats (lipids)** are also compounds of these same elements of carbon, hydrogen, and oxygen linked together differently. Fats are not water soluble.

**Proteins** are large molecules of these same chemicals, with the addition of nitrogen in the form of amino groups. Some proteins contain phosphorus or sulfur.

Even though carbohydrates and fats are composed of the same basic elements, fats and oils are much more concentrated. Carbohydrates (sugars and starches), and proteins, yield about 4 calories per gram; fats yield about 9 calories per gram. This needs to be considered when determining the number of calories in foods from information furnished on food labels.

Whole, unrefined, foods contain some of each of these three main nutrients, together with minerals, vitamins, enzymes, and other nutrients needed for energy metabolism, building and repair, and for regulating body processes.

| **Food needed for:** | **Is best supplied by:** |
|---|---|
| Heat and energy | **Carbohydrates** and fats |
| Building and Repair | **Fats**, proteins, and carbohydrates |
| Regulating Body Processes | Water, protein, minerals, vitamins, and cellulose |

## Summary and recommendations

**Grains, fruits, nuts, and vegetables, meet the definition for *food*. But which, how much of each, should be included in the daily food intake?**

Use a variety of unrefined, whole foods from meal to meal, and day to day, but keep each meal simple.

**"Eat largely of fruits and vegetables"** is a guideline from the pen of Health Educator Ellen G. White *(Counsels on Diet and Foods*, page 200). Based on this principle:

Fruits and vegetables may be used freely, forming the foundation of the diet. Use them fresh as much as possible.

Grains and grain products should be used in amounts adequate for energy needs and for maintaining desired weight. Foods high in protein should be used moderately.

Concentrated foods, such as nuts and seeds, should be used sparingly.

## *BREAKFAST. . .* Where good nutrition begins!

Good nutrition begins with a good breakfast. The custom of many is to take a slight breakfast,— or no breakfast. However, this is the most important meal of the day. The stomach is better able to care for more food at breakfast time than at the second or third meal of the day. Breakfast nutrients are needed for the activities of the day. Eating a large meal at night burdens the body with nutrients that are not needed during rest. Breakfast should more nearly be the heartiest meal of the day.

**People who skip breakfast are more likely to have accidents on the way to work, or on the job, than are those who eat a warm breakfast. Even if no accidents occur, work output is reduced.**

See Winston J. Craig, *Nutrition for the Nineties,* 226

**Yes, breakfast is the most important meal of the day. With a little planning, a nourishing meal can be prepared, and time allowed for enjoying it, before taking up the duties of the day.**

**As breakfast is the most important meal of the day, remember (while being temperate in all things), to eat:**

# BREAKFAST LIKE A KING

## *DINNER-LUNCH LIKE A PRINCE*

## SUPPER LIKE A PAUPER

# What *shall* we have for breakfast?

> "Dry food that requires mastication is far preferable to porridges. . . .
>
> For those who can use them,
> good vegetables, prepared in a healthful manner,
> are better than soft mushes and porridge.
>
> Fruits, used with thoroughly cooked bread two or three days old,
> which is more healthful than fresh bread,
> slowly and thoroughly masticated,
> will furnish all that the system requires."
>
> Ellen G. White, *Healthful Living, 90, 91*

**Tip:** Don't limit your breakfast to the usual "breakfast foods." Any good source of energy (complex carbohydrates), with some protein, and, of course, plenty of fresh fruits or vegetables,— yes, vegetables,— are excellent foods to start the day. Note again the advice given above. It may be surprising, but vegetables are better than soft mushes or porridge. See the recipes for this lesson for "jams" and some of the other breakfast suggestions. Try:

Whole grain waffles with "jams" or fruit sauce; or served with vegetables in "cream" or savory sauce.

**Rice-Soy Pancakes** with "jams" or fruit sauces, or a savory sauce.

Steamed brown rice, or other whole grain, topped with non-dairy milk or cream, served with fruit and nuts.

**Baked Brown Rice** served with nuts or seeds and fruit or savory sauce. Prepare the evening before, and set timer to have it ready for breakfast.

**Breakfast Granola** (oil free) with fruit.

Oven potato sticks or slices with **Tasty Soy Souffle.**

Steamed brown rice, or other whole grain topped with legumes, or a legume gravy.

**Oven Hash Browns** with **Scrambled Tofu** prepared without added fat.

Wake up to a baked potato (set the timer), and serve with a **Best Chez Sauce** topping, green gravy, or legume gravy. Excellent replacement for greasy hash browns and fried eggs.

**Peachy Breakfast Cake,** with fresh fruit and nuts. Add a cup of thick split pea soup for a more hearty meal.

Try the various nut, fruit, and/or nut-grain milks or creams, as well as whole **Soy Milk**, for cereal toppings.

# Whole grains in the diet

> "Grains used for porridge or 'mush' should have several hours' cooking. But soft or liquid foods are less wholesome than dry foods, which require thorough mastication."
> Ellen G. White, *Counsels on Diet & Foods*, 314

The dictionary defines *several* as being more than two but fewer than many. Recent research is confirming the need for well-cooked grains. Well baked breads and other baked grain dishes are good foods,— and popcorn.

Sprouted grains may be eaten raw when the blade is as long as the grain. See Agatha Thrash, MD, Grains, Cook'em, Cook'em, Cook'em, *Emphasis: Your Health*, Spring, 1993, Long Cooking of Grains , , , Again, Emphasis, Spring, 1994

See 1-Rx 4 for cooking guidelines.

# Should we be eating more carbohydrates?

One of the key recommendations in the Surgeon General's 1988 report was the need to "Increase the consumption of complex carbohydrate (CHO) and fiber" (see page 3 of this lesson). Many who have increased their use of carbohydrate-rich foods, especially grains and grain products, are questioning this advice because they have gained unwanted pounds. Their confusion and concern as to what they should eat if they reduce their consumption of protein has been expressed in the popular press.

There is a key word in the Surgeon General's recommendation that should not be overlooked. This very important word is *complex*. Complex carbohydrates include whole grains, legumes, fruits, nuts and vegetables. When these foods are refined and processed they are no longer *complex* but *simple* carbohydrates.
Usually, the simple carbohydrates, together with free fats, are the root of an overweight problem, because: (1) they do not satisfy, so they encourage overeating; (2) they release energy quickly, that lasts but a short time. This encourages the snacking habit.

The *complex* carbohydrates, whole grains and whole grain products, together with legumes, vegetables, fruits, and nuts, are satisfying, which discourages overeating; and they release energy more slowly, over a longer time span,— no need to snack!

Also, the rapid absorption of free simple carbohydrates means that these must be converted to fat or glycogen (body starch) to prevent excessively high blood sugar, which adversely affects the brain. The high insulin levels drop more slowly than the blood glucose, and reactive hypoglycemia develops.

Do not despair if you enjoy pasta. Whole grain pastas are available, and they are tasty!

Whole grains need to be balanced with an abundance of vegetables and fruits,

which also are carbohydrate foods. (See Lesson 8.)

# *THE DIGESTIVE SYSTEM*

"The stomach has a controlling power upon the health of the entire body." Ellen G. White, *Healthful Living,* 161

The best of foods may be eaten, but if they are not properly digested the system will not be well nourished. A brief outline of this most important system, with some guidelines for good digestion are briefly presented here. Some of the guidelines will be considered in greater detail in future lessons.

The digestive system includes:

| | | |
|---|---|---|
| Mouth | Small intestines | Liver |
| Esophagus | Large intestines | Gall bladder |
| Stomach | | Pancreas |

**Gates:** There are several "gates" in the system. You do not have conscious control over most of them, but they should function normally if good habits are maintained.

**Lips**: The quality and quantity of foods passing this gate can be controlled; also, the timing of taking foods into the system.

**Anus:** Answering the call promptly will encourage regularity in disposing of food residues, reducing possibility of absorption of toxic wastes.

**Mouth** includes:

**Grinders.** Chewing the food slowly:

1. Prepares food for digestion, and mixes it with saliva.
2. Helps regulate quantity eaten.
3. Exercises and polishes the teeth.

**Salivary glands** provide saliva which starts the digestion of starches in the mouth.

**Taste buds** savor salty, sour, bitter, and sweet, making mealtime pleasant with a variety of flavor combinations. Rushing through meals shortens this pleasure, and hinders digestion.

**Stomach** furthers the work of digestion as it churns and mixes the food with its gastric juices

Minerals, vitamins, and enzymes, along with other nutrients are needed to make good digestive juices.

Liquids taken with meals inhibit the flow of saliva, and dilute gastric juices, delaying digestion

Foods coated with added fat are difficult to digest.

**Resting** immediately after a meal slows digestion. It is better to keep active, but not engage in strenuous activities.

**Irritants**, including, spices, vinegar, aspirin, alcohol, and some other drugs affect, not just the stomach and other digestive organs, but also the finer sensibilities of the mind and temper.

**Duodenum:** Alkaline digestive juices here neutralize stomach acids.

The digestive process is continued in the duodenum. Assimilation of nutrients into the blood and lymph begins here.

**Pancreas.** This is the main digestive gland. It secretes powerful enzymes which it pours into the duodenum to complete the digestion of foods.

**Liver.** One of the hundreds of functions of this organ is the production of bile, which is stored and concentrated in the gallbladder, and poured into the duodenum to emulsify fats for digestion.

The liver has to deal with nutrients which have been absorbed. It changes them into substances the body can use, and directs storage of the excess for future use.

**Jejunum and Ileum:** The digestive process continues here for a minor portion of undigested food. The chief role of the small intestines is absorption of nutrients.

**Colon:** Water is re-absorbed here. The colon is the "holding tank" for food residue. It should empty itself at least daily.

**Transit time** should be about 30 hours or less from eating to defecation. This may be checked by eating a generous portion of beets, or by swallowing a few whole kernels of sweet corn with a meal; then noting first appearance, and “all clear” times. Fiber-rich foods such as fresh foods and whole grains help shorten transit time.

Food residues retained in the system may ferment or putrefy. Toxins thus produced may be absorbed into the system. It is important to keep the transit time short.

**Water** taken between meals is an aid to good digestion, and regularity of bowel action.

**Exercise** is also important.

**Interdigestive Phase:** The stomach and other organs of digestion need rest between work sessions. A minimum of five hours from the end of one meal to the beginning of the next is needed to allow time for this rest.

**Snacking** interferes with the interdigestive phase. The introduction of any food into the stomach before the previous meal has been digested

interferes with this needed rest, inhibits the digestive process, and increases risk of disease.

**Good food must be properly digested to benefit the system; also, a nutritious diet, and cooperation with the laws governing the digestive processes, are essential for good digestion.**

# An interesting experiment!

An experiment conducted at the *New England Sanitarium* shows the effects of snacking.

A healthy nurse ate an ordinary breakfast at 7:30 a.m., with barium so X-ray pictures would show progress of digestion.

During the day she ate four pieces of fudge.

One at 9:00 a.m.
One at 11:00 a.m.,
One at 2:00 p.m., and
One at 4:00 p.m.

She ate dinner at 12:00, and supper at 6:00 p.m.

X-ray pictures showed *breakfast* was still in the stomach *nine* hours after it was eaten; and *thirteen and one-half* hours after breakfast it was *still* there.

The day before this same stomach digested the same type of breakfast, with no fudge snacks, in four hours.
Julius Gilbert White, *Abundant Health,* 93, 94

Even just fruit snacks will delay the digestion for many hours.

# More tips for good digestion

Food should be thoroughly chewed to allow time for the digestion of starch to begin in the mouth.

Proper clothing is an aid to good digestion. Tight bands around the waist or abdomen hinder the organs of digestion in their work. Bands tight enough to leave a mark should not be worn. Also, if the limbs are not properly clothed during cold weather the blood is chilled back from its natural course and the internal organs become congested. This may cause indigestion.

The stomach should be finished with its work for the day when we lie down to rest,— it should not have to work while we sleep. Time for rest is essential for a healthy stomach.

Some may find two meals a day to be sufficient, giving the stomach plenty of rest. If a third meal is needed, the foods eaten should be light, and taken several hours before bedtime.
A sense of "goneness," and desire for frequent eating may result when the organs of digestion are weakened from constant activity. They need a good rest, not more food.

The intricate workings of the human body are truly marvelous. Taste buds not only give pleasure as we eat tasty foods, but they also serve a practical purpose. Researches have found that the tongue and other sensors in the gastrointestinal tract, among other tasks, assess the quality of food in a meal and order adjustments to the digestive processes to maximize absorption of nutrients.
See E. Pennisi, *Gut counts calories even when we do not, Science News,* November 26, 1994, 359

Rich, complicated foods, or too great a variety at one meal, could frustrate

this fine tuning of the digestive process.

# Water for good digestion . . .

## With, or between, meals?

> "Taken with meals, water diminishes the flow of the salivary glands; and the colder the water the greater the injury to the stomach."
>
> "To quench thirst, pure water, drunk some little time before or after a meal, is all that nature requires." Ellen G. White, *Healthful Living,* 89, 90

No drink should be used at mealtime to wash the food down. Liquids taken with meals make it difficult for food to digest, as the liquid has to be absorbed before the stomach can do its work. For this reason soups are not the best of foods.

Many times thirst is mistaken for hunger. A glass of water in place of a snack will allay the thirst, and the next meal will be enjoyed more because the stomach has had its rest.

Iced drinks taken with meals arrest the digestion until the stomach can be warmed again.

However, water is very essential for good digestion, as well as for the healthy action of every body cell. Lesson 3 contains more information on the role of water in a health promoting lifestyle. But the need to drink plenty of water is so important it is introduced here. Sorry! Coffee, tea, and like beverages do not count.

**At least 6 to 8 eight-ounce glasses of water should be taken daily:**

2 glasses upon arising, at least one-half hour before breakfast,
2 to 3 glasses from one-and-a-half to two hours after meals,
continuing up to half an hour before the next meal,
(but **not** during meals);
and some more before bedtime.

**It is best to drink small quantities of water frequently during your water-drinking time, rather than to drink a large quantity at one time. Taking a large quantity of water at one time dilutes body fluids, and the kidneys excrete it within a short time to bring the "water level" to a comfortable range. "Sipping" is a good way to take your water!**

# Remember to:

Drink 6 to 8 glasses of **water** daily

Eat a **good breakfast** every morning.

Avoid **snacking** between meals.

# *E X E R C I S E . . .*

## *For a Healthy Condition of Body and Mind*

Watchword

### Daily, "Brisk, yet not Violent, Exercise"

"Judicious exercise will induce the blood to the surface, and thus relieve the internal organs. *Brisk, yet not violent,* exercise in the open air, with cheerfulness of spirits, will promote the circulation, giving a healthful glow to the skin, and sending the blood, vitalized by the pure air, to the extremities." Ellen G. White, *Healthful Living,* 132

"Exercise is important to digestion, and to a healthy condition of body and mind." *Ibid.* 133

*And the Lord God took the man, and put him into the garden of Eden to dress it and to keep it.* *Genesis 2:15*

The human body is made for action. It might be compared to nicely adjusted machinery. In order to keep it in good running order it must have proper care. One part should not be overworked, while another part rusts from inaction; the mind and the muscles should each have their share of taxation and exercise.

"More people die for want of exercise than through over fatigue; very many more rust out than wear out."
Ellen G. White, *Counsels on Health,* 173

It is best to exercise in the open air, rain or shine!

Useful activities, especially when engaged in cheerfully, are of great benefit. Little is gained if the activity is thought of as drudgery. Even a walk among beautiful surroundings on a made-to-order day will not result in much good if engaged in with an "I'll do it if I have to" attitude.

On the other hand, benefits from exercise can be increased if the object is to do some good, especially if it is to benefit others. This is an excellent way to encourage the release of **beta-endorphins** by the brain, the natural, safe, pain relieving, memory enhancing, morphine-like hormone.

*A merry heart doeth good like a medicine; but a broken spirit drieth the bones.*
*Proverbs 17:22*

## Exercise is one of the most important essentials to a healthy lifestyle.

It improves the circulation of blood to every organ, every cell, encouraging metabolic processes. For want of exercise some vital exchanges in the system may not take place. Muscle action helps "milk" blood back to the heart through the veins, helping the heart in its work.

It is essential for muscular development, including the heart muscle. As the heart muscle is strengthened the resting heart rate is reduced, allowing the heart to rest longer between beats.

It aids in the purification of the blood, as it encourages perspiration, and blood passes more often through lungs, kidneys, and skin, where poisonous wastes are removed.

It lowers the blood cholesterol level.

It helps to lower blood pressure.

It develops the respiratory muscles, and expands the chest.

It increases lung capacity, thus increasing resistance to disease.

It improves digestion and the general health and action of the colon.

It hastens healing processes because of a better supply and quality of blood.

It is essential to growth, tending to symmetrical growth of the body.

It develops good posture, and gives grace and steadiness to movements.

**Outdoor exercise in the morning is necessary for healthy circulation of the blood. It safeguards against colds, coughs, congestions, inflammations, and many other diseases.**

"There is no exercise that can take the place of walking. By it the circulation of the blood is greatly improved. . . . Walking, in all cases where it is possible, is the best remedy for diseased bodies, because in this exercise all of the organs of the body are brought into use."
Ellen G. White, *Healthful Living,* 129, 130

"Each organ and muscle has its work to do in the living organism. Every wheel in the machinery must be a living, active, working wheel. . . A variety of exercise will call into use all the muscles of the body." *Ibid.,* 128

Make walking-time family-time,—a sharing time. It can also be made a learning-time. Observe plants, trees, birds, and animals along the way, drawing object lessons from what is observed for the children and young people. Take a different route from time to time to include new items to observe and to learn about, as well as to enjoy new scenery.

# Tips on exercise

**As our diet should include a variety of foods from day to day, it is also best to include a variety of activities in the exercise program,— strength building as well as aerobic.**

Conditioning exercise should be preceded by warm-ups for about 10 minutes to enhance the capacity to exercise. This also tends to prevent injuries by loosening up tendons, ligaments, and joints.

A cool-down period after the conditioning exercise is also important. Blood that is trapped in the exercising muscles needs to get back to the heart and lungs. Continuing movement "massages" the blood back to the central circulation.

Learn to "listen" to your body. It is normal to be tired after exercising; but the overall effect should be invigorating. An exercise program should not leave a person feeling exhausted all the time.

You should be able to carry on a conversation during a brisk walk. Slow the pace if you cannot talk while walking.

Avoid strenuous exercise just before, or immediately following meals. Light exercise after meals is very beneficial.

Benefits derived from exercise in the open air, away from busy streets and highways, or other sources of air pollution, are far superior to the results obtained in a gymnasium or other type of indoor activity. Areas near streams or lakes, and/or near wooded areas where the air is more pure, are best for exercising. Sunlight with exercise increases the benefits even more.

It is not necessary to join some aerobics or gymnastics group to gain the benefits of exercise. Useful employment, especially in the open air, is excellent exercise. This could take in many activities; such as, chopping wood, raking leaves, shoveling snow, washing the windows or car, and, of course, gardening. See Appendix B for Tips on Gardening.

Practice deep breathing exercises while doing some household chores in the open air, such as:

Ironing on the back porch or veranda.

Kneading bread by hand near an open window, or outdoors.

Preparing garden produce for canning, etc., etc.

Another option: step out on the back porch or veranda, and skip rope for a few minutes, or pretend to skip rope,— using the arms as if swinging a rope to help expand the lungs. This can be varied to provide easy, or more demanding, exercise.

By all means, include walking in your exercise program. Remember, "There is no exercise that can take the place of walking." A brisk walk in the morning is a good way to start the day, and an evening stroll can soothe and quiet the nerves for a good night's sleep.

**When a person attains fitness and is in shape, less sleep is needed; therefore, time for exercise need not leave less time for other activities.**

# How much should a person exercise?

For most people, the watchword at the beginning of this lesson should be the guide:

**"Brisk, yet not violent, exercise."**

It isn't necessary to engage in a "training" type exercise program to increase the heart rate to a certain count. However, the daily routine should include time for some outdoor activity that will provide moderate to brisk exercise for at least 30 minutes. More would be better. Moderate to brisk daily exercise is better than strenuous exercise once or twice a week. Even 20 to 30 minutes three times a week will bring a marked improvement in health over that experienced in a sedentary lifestyle. We were designed to be active,— in motion,— every day.

Do not rush into your exercise activity. The heart rate should be increased gradually,— to a comfortable rate. A good rule is to continue the activity long enough to induce perspiration. This will ensure that the blood is coursing through all the capillaries, not just trickling through a few of them at a time, as may be the situation when one is sedentary.

Activities should be varied to call into action all the muscles of the body. Remember to include strength building, as well as aerobic, activities.

You should feel invigorated and rested after exercising, not worn out and sore. You may feel tired for a little while, but that should pass. Muscle soreness may be experienced for a day or two after overdoing, but should not last much longer than that

# Remember:

**Start an exercise program sensibly and gradually**

**Exercise aids the heart in its work, and promotes good circulation so the blood can supply the needs of the most remote cells.**

**Wholesome foods are needed to supply fuel and other nutrients for active cells.**

**A more alkaline blood stream is conducive to greater endurance.**

**If you don't find time to exercise,<br>it is very likely that<br>you will have to find time to be sick!**

# CARBOHYDRATES

Dr. Thrash comments, "**Energy.** In the body, the reverse of the photo-synthetic process yields energy with carbon dioxide and water as by-products. Carbon dioxide is breathed off in the lungs, and water is used to hydrate the tissues or is eliminated through the kidneys."

Agatha Moody Thrash, M.D., and Calvin L. Thrash, Jr., M.D., *Nutrition for Vegetarians*, 35.

What a wonderful arrangement. Leaves, powered by the sun, make foods; this energy is released in our bodies as nutrients are metabolized.

## Which of the main food types, proteins, carbohydrates, or fats, is the best source of fuel for energy?

Many people think that a liberal supply of protein, especially as found in flesh foods, is needed in order to perform hard physical labor. Is this true?

"Foods for fuel to produce energy can be carbohydrates, fats, or proteins, but **carbohydrates make by far the best fuel. . . No part of the carbohydrate molecule is left over to be disposed of in some way other than through the process that furnishes energy.** "
*Ibid.* 34

However, if there is a shortage of carbohydrates, and protein has to be burned as fuel, the body has to split off the amino group(s) and dispose of them. This is not only a waste of nutrients, but also places an extra burden on both the liver and kidneys, and weakens the bones as calcium is used in the process.

Fats can be used as fuel, but they do not burn as efficiently as carbo-hydrates do. Muscle cells can be "conditioned," or trained, to use fat for energy. Such training reduces the requirement for insulin.

"Carbohydrates represent almost the entire source of energy for nerve tissue, as fats and proteins cannot be utilized well by nerve cells to produce energy."
*Ibid.* 36

## Are highly refined carbohydrates good energy foods?

Refined, devitalized, foods may furnish carbohydrates, but they lack many nutrients found in whole, un-refined foods that protect or aid the metabolism of the food. To recombine these nutrients in their proper ratio as found in natural, whole foods would take time and skill beyond our abilities.

See Zane R. Kime, M.D., M.S., *Sunlight,* 118

Besides the problems from the lack of nutrients, refined foods are highly concentrated. It takes 6 - 8 feet of average-sized sugar cane to make one cube of sugar! Who could eat that many feet of sugar cane at one time? **Refined carbohydrates, including sugar, do not meet the definition of *food*. They do not contain all needed nutrients,— and clog the system.**

# *Is the refined carbohydrate* *SUGAR . . .* *A Good Fuel, or Trouble Maker?*

> The free use of sugar in any form tends to clog the system, and is not unfrequently a cause of disease." Ellen G. White, *Healthful Living,* 83

*It is not good to eat much honey. Proverbs 25:27*

The following warning against an *excessive* use of sugar was written in 1905, when sugar consumption was far less than it is today.

**"Far too much sugar is ordinarily used in food."**
Ellen G. White, *Counsels on Diet and Foods,* 113

## PER CAPITA CONSUMPTION OF SUGAR IN THE U.S.

**(Pounds)**
From Zane R. Kime, M,D., M.S., *Sunlight* 119

| **1822** | **1900** | **1929** | **1959** | **1973** |
|---|---|---|---|---|
| 8.9 | 65.3 | 119 | 106 | 126 |

The consumption of sugar and other sweeteners in **1990** was **138** pounds per person. This includes corn sweeteners, honey, maple sugar, syrup, sorghums, and low-calorie sweeteners such as saccharin and aspartame.

The annual consumption of flour and cereal products, (including wheat, rye, rice, corn, oat, and barley) in **1990** was **185** pounds per person.

This is amazing! The use of sugars and other sweeteners amounts to nearly three-fourths as much as the use of flour and cereal products! **For each pound of grain and grain products consumed, the average American consumes about three-fourths of a pound of those simple, refined, carbohydrates,—sugar and other sweeteners!** And, a good share of the grain products are refined. Is it any wonder that degenerative diseases are so prevalent?

**Be a label reader. Sweeteners are used in a wide variety of foods, including many vegetables. Also, a variety of sweeteners may be used in a product so that at first glance the sweetener content does not appear to be high, when it is.**

# Are some sugars better than others?

The simple sugars (monosaccharides) glucose, dextrose, fructose, and grape sugar as they come in their natural state in fruits and plants are excellent fuels for cells to use in producing energy and heat.

Sucrose, or common table sugar, is a double (disaccharide) sugar composed of one molecule each of fructose and glucose. The very nature of this double sugar is very irritating to the gastro-intestinal tract until it is broken down to its simple sugars in the small intestine. This is true of sucrose whether in the form of white sugar, or the various brown sugars.

White sugar is pure carbohydrate. The vitamins, minerals, and other nutrients found in the cane and beets have been removed. The various “brown” sugars contain only minimal amounts of minerals. However, *all* of them are highly concentrated, and as such they clog the system, inhibiting the delicate chemical reactions that must take place in the cells to maintain good health.

Refined carbohydrates, including honey, are absorbed quickly into the system, calling for insulin to help use the high level of glucose in the blood. The insulin lowers the glucose level within a short time, resulting in an “all gone” feeling. More concentrated sweets are consumed to raise the energy level again, and the process is repeated again and again.

Natural, complex carbohydrates, as found in fruits, vegetables, whole grains and other natural foods are easily digested, but they are absorbed and metabolized more slowly, sustaining a more even energy level.

Even natural, unrefined, concentrated sweet foods should be used judiciously. Fresh fruits and vegetables, together with whole grains and legumes, are the best sources of fuel for body cells.

# What about sugar alternates or substitutes?

Is not fructose a “natural” sugar, since it is found in fruit? Fructose is found in fruits; however, the white, finely granulated, product that may be purchased in the market may have been produced by breaking the tie binding fructose and glucose together as sucrose, or from corn starch through chemical reactions. Thus it is a further refinement of already refined products. Dr. Thrash notes:

“When an excess of fructose appears in the blood, it is converted to lactic acid. Some physiologists associate lactic acid build-up in muscles with the appearance of symptoms of fatigue. Fructose seems to be more difficult for the biochemical systems to handle than glucose.”
Agatha Moody Thrash, M.D., and Calvin L. Thrash, Jr., M.D., *Nutrition for Vegetarians*, 35.

Refined sweets are devitalized and concentrated. The new, artificial, and/or rare sweeteners as refined or artificial products may also be harmful to the body. Some are more difficult for the system to digest and/or metabolize than is common sugar.

# What about canning fruit?

> "Wherever fruit can be grown in abundance, a liberal supply should be prepared for winter, by canning or drying.
>
> "Use little sugar, and cook the fruit only long enough to ensure its preservation." Ellen G. White, *Counsels on Diet and Foods*, 311

Sucrose is hydrolyzed when boiled in water with acids, or digested in the gut. This changes it to invert sugar; that is, separates it into its simple sugar components of glucose and fructose. Honey is mainly invert sugar; not as refined as hydrolyzed sucrose, but still a concentrated sweet! In the canning process sucrose will be converted to invert sugar. But the guideline is, "use *little* sugar," as any sugar is highly concentrated and refined.

Not much liquid is needed when fruit is packed tightly into jars, then very little added sweetening will make it tasty. The less liquid used, the less sweetening needed. Fruit juices, such as pineapple or apple, may be used for all or part of the liquid, reducing or eliminating the need for other sweeteners. We need to remember, however, that some commercial "unsweetened" juices may have added sweeteners.

# Sugary advice!

If used, use refined sugars sparingly; and other concentrated sweeteners, such as syrups, sorghum, and concentrated fruit juices, judiciously.

Artificial chemical sweeteners should not be used. The body was not designed to deal with them.

Many are tempted to eat rich desserts after having eaten all that was needed to nourish the system. In addition to placing an extra load on the digestive organs, the devitalized ingredients in these rich desserts clog the system.

Learn to enjoy the natural sweetness in foods, especially the fruits. Many vegetables are sweet to the taste, such as squash, sweet corn, tender peas, and carrots. Enjoy them!

Dried fruits, such as raisins, prunes, apples, apricots, etc., can be used as staple articles of diet much more freely than is customary if they can be obtained at reasonable prices. They are good energy foods, bringing health and vigor to those who use them.

Sweet treats can be made of wholesome ingredients that will furnish part of the nutrients for the meal. A good practice is to place the dessert on the table with the other food, or let diners know that it will be served, thus encouraging temperance.

The recipes for this lesson furnish a sampling of sweet treats made with natural sweets, some with concentrated sweeteners, as concentrated fruit juices or honey. Use temperately!

## **Remember**, "the *free* use of sugar *in any form* tends to clog the system."

Insulin and chromium are required to move sugar from the blood stream into cells where it can be burned.

Many natural foods contain chromium, but most of it is removed when foods are refined, so the diet of the Average American contains very little. When refined sugar (with no chromium) is consumed, chromium must be taken from body stores, if available, in order to use the sugar. Disease is invited as chromium reserves are depleted.

Chromium is also needed to move fat and amino acids from the blood stream into body cells.

See Zane R. Kime,. M.D., M.S., *Sunlight*, 120

### Effect of Sugar Intake on the Ability of White Blood Cells to Destroy Bacteria

| Amount of sugar eaten at one time by average adult (in teaspoons) | Number of bacteria destroyed by each WBC | Percentage decrease in ability to destroy bacteria |
|---|---|---|
| 0 | 14.0 | 0 |
| 6 | 10.0 | 25 |
| 12 | 5.5 | 60 |
| 18 | 2.0 | 85 |
| 24 | 1.0 | 92 |
| Uncontrolled diabetic | 1.0 | 92 |

Agatha Moody Thrash, M. D., and Calvin L. Thrash, Jr., M. D., *Nutrition for Vegetarians*, 40
From studies made at Loma Linda University

## Complex carbohydrates provide peak performance!

Just as a car operates better on high-octane fuel, so the human body operates best on the fuel designed for it. Complex (unrefined) carbohydrates were designed for the needs of the body. Refined carbohydrates clog the system.

Whole grains, legumes, fruits, and vegetables are excellent sources of complex (unrefined) carbohydrates. They are abundant, and less expensive than high protein or high fat foods. Energy is released more slowly and over a longer period of time from complex carbohydrates than from simple (refined) carbohydrates.

A fresh apple will provide sustained energy for about 4 hours; apple sauce will provide a quicker, higher rise in energy, but for a shorter time; apple juice will give a quick, high rise in energy, that will also drop quickly (in about two hours) to a lower level.

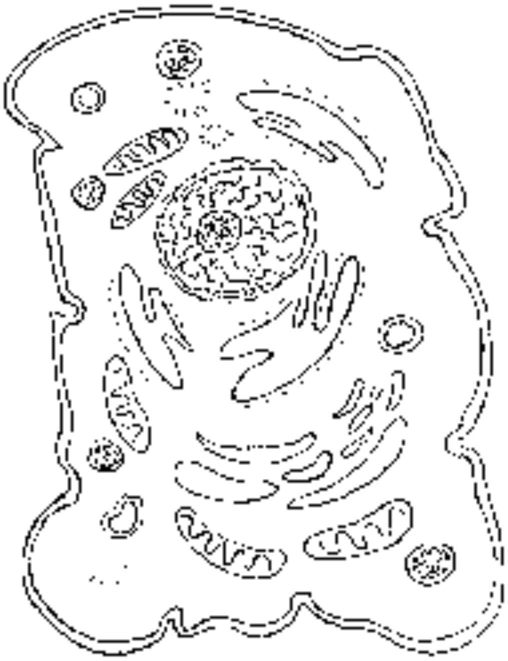
As complex carbohydrates provide sustaining energy they are a great help to those who have fluctuating blood sugar levels.

**Complex carbohydrates are the body's preferred source of fuel for sustained energy and heat. Proteins and fats are not as efficient fuels, and disposing of the waste products from proteins places an extra burden on the body.**

# *BASICS:*

Cells are the wonderful, basic units of the body—yes, of all living things! They vary in size and shape in different body tissues, each performing its own specific task. Most of the billions of cells in the human body are so small it takes a powerful microscope to see them. Each is complete in itself with mini organs, known as *organelles,* that enable it to take in nutrients, remove waste materials, breathe, and perform its special function in the body.

Some of the minute *organelles* of a typical cell are shown in this diagram.




*Nucleus* is the command center of the cell, containing the DNA.

*Nucleolus,* which is within the *nucleus,* contains the RNA.

*Centrioles* are believed to aid in cell division.

*Endoplasmic Reticulum* build various proteins from building blocks, and transport them; and may be involved in producing steroid molecules. They also engulf and destroy viruses and germs.

*Golgi* Complexes are believed to store and concentrate proteins, and are involved in lipid and carbohydrate chemistry.

*Lysosomes* are minute containers of enzymes which break down complex nutrients and perform many other tasks.

*Mitochondria* are the marvelous little powerhouses that provide heat and energy.

*Vacuoles* are minute containers that transport various compounds within the cell, as well as move wastes out, and nutrients in.

# "Choose something better" for healthy cells!

These little bits of life need clean, nontoxic surroundings, and the right kind of fuel, building materials, and other supplies necessary for their specific functions, in order to remain normal and function efficiently. They will do the best they can with what is available. But if they have to work with "building blocks" that don't fit, or a fuel that leaves debris in the system, or have to live and work in a "muddy" or "stagnant" situation in the extra-cellular spaces, they may be damaged. Parts of a cell may be altered in structure and function. It may sicken, and even die. The whole system suffers the consequences.

Your cells are dependent on your choices in providing for their needs. They cannot move to another "host" to find better living conditions.

If cells are supplied with needed nutrients and wastes are promptly removed, they can function properly; but if toxic substances are introduced, proper nutrients not supplied, and wastes accumulate—there is trouble within the cell, and for the body.

As we learn to practice the **eight true remedies**, giving our cells our best, they will do their best for us—adding zest to our lives!

Some people have inherited a greater measure of vitality than others, and some may have lived more in harmony with the **eight true remedies** than others have; but no matter what a person's experience may have been, increased vigor and vitality may be experienced when the **eight true remedies** are practiced.

"Each living cell is a mass of restless activity. It is a dynamic unit of life, born for only one purpose,—to carry out its own particular functions. Within this tiny world of streams and surfaces all kinds of wonderful things are going on. It is said that over a thousand different electro-chemical reactions are taking place within the one tiny cell all at the same time. If anything borders on the miraculous, it is this."

Clifford R. Anderson, M.D., *Modern Ways to Health,* 514

Some of the harmful effects of devitalized foods have been touched on in this lesson, and the benefits of exercise to enhance cell efficiency and activity. Future lessons will give added insights on things or practices that inhibit healthy cell activity, or that promote their health.

# THE BONES AND MUSCLES

"The exercise of one muscle, while others are left with nothing to do, will not strengthen the inactive ones, any more than the continual exercise of one of the organs of the mind will develop and strengthen the organs not brought into use. Each faculty of the mind and each muscle has its distinctive office, and all require to be exercised in order to become properly developed and retain healthful vigor. . . . A variety of exercise will call into use all the muscles of the body."

Ellen G. White, *Healthful Living,* 127, 128

**Bones** are the firmest parts of the system, yet they are not lifeless sticks supporting the body. They have sufficient vital tissue to perform their functions and to repair injuries should they occur. Bones not only provide support for the softer tissues of the body, they also:

Protect vital organs,

Act as storehouses, releasing stored nutrients on demand from the body.

Provide motion: The bones act as levers, providing motion in conjunction with muscles.

Form blood cells.

Blood cells are formed in bone marrow. New red blood cells and platelets are being made and added to the blood stream continually; but, on demand, production increases. New white blood cells linger in the marrow until called for.

The well-arched skull secures the greatest possible strength to protect the brain from injury.

The peculiar curves of the spinal column conduct away the lines of force from activities such as walking, running, and jumping, preventing much of the jarring from reaching the head. The discs between the vertebrae also help to cushion the brain during strenuous activities.

The thorax is a bony cage protecting the lungs, important nerves, heart and great blood vessels.

# Hygiene of the bones

**Good nutrition** is essential for healthy bones. This should include an adequate supply of minerals as found in green leafy vegetables, legumes, and whole grains. The protein intake should be adequate; however, an excess (even of vegetable origin) should be avoided, since this results in loss of calcium. (See Lesson 6 for more information on green leafy vegetables as a source of minerals.)

**Exercise** stimulates bones to attract and retain minerals.

Young children have soft, pliable, bones that yield when subjected to more strain than they can bear, and may be distorted. Care should be taken to avoid placing too much stress on soft, pliable, bones, such as encouraging infants to walk before they have matured properly.

Children need plenty of outdoor exercise to develop well formed, sturdy bones. The exercise should be varied, with frequent intervals for rest.

**Correct posture is to be taught, encouraged, and practiced. Improper positions assumed in lying, sitting, standing, and walking result in many evils. Many cases of spinal curvatures may be credited to poor posture in school rooms.**

## Osteoporosis

Osteoporosis is a thinning of the bones, which leads to easy fractures. This problem usually afflicts menopausal women, the elderly, and invalids. The use of animal products in the diet increases the acid radicals of the blood. Calcium leached from the bones to help neutralize these acid radicals is disposed of in the urine with the acid radical wastes.
See Agatha Moody Thrash, M.D., Calvin L. Thrash, Jr., M.D., *Nutrition for Vegetarians,* 5, 102, and 103

Changes in hormones associated with severe depression also reduces bone density. Depression often leads to poor eating habits which also affects bone density. “A broken spirit drieth the bones.” Prov 17:22. See *Depressed to the Bone . . . Science News, 11/26/94*

Dr. John R. Lee, M. D., has shown that a plant-source progesterone used as a special skin cream, has a capacity to increase bone density, and will check osteoporosis when used with proper diet and exercise. See your physician. Simple tests indicate if there is a need, or if absorption is adequate. See Milton G. Crane, *The Use of Progesterone and/or Estrogen in Osteoporosis*

Vegetarians especially should be sure of an abundant daily intake of low-oxalate dark greens for needed calcium and other minerals. Oxalate from certain greens, rhubarb, and peanuts; phosphate from soft drinks; and protein residues, make up the major acid radicals so harmful to bones.

If produce is grown on good soil, vegetarian diets are rich in magnesium, a mineral shown to also improve bone density. Non-vegetarian diets do not provide adequate amounts of this mineral. See Kay B. Franz, Ph.D., Abnormalities in Parathyroid Hormone Secretion . . . in Women with

Osteoporosis, *The New England Journal of Medicine,* 06/22/89, 1697.
**Plenty of exercise, and exposure to sunshine for vitamin D, are very beneficial factors in preventing or reversing osteoporosis.**

## Muscles

There are two kinds of muscles, voluntary and involuntary.

Most of the voluntary muscles, which are used in voluntary motions, are located on the exterior of the body, giving roundness and symmetry to the form.

Involuntary muscles are mainly found within the body, such as in membranes, in walls of cavities, and in blood-vessels.

Involuntary muscles control the movement of food after it is swallowed, as well as the activities of most of the other body organs.

Some of the muscles that help move the head perform as pulleys.

The lungs are composed of voluntary muscle fibers, being under the control of the will; but so controlled by the nervous system that they are kept in constant motion. This is a wise arrangement, since there are times that it is necessary to hold the breath, or to inhale or exhale quickly.

Muscle fibres contract in response to impulses from the nerves. As each minute muscle fibre or cell contracts by thickening and shortening, the whole muscle thickens and shortens. All motion is accomplished in this simple way.

Muscles of motion use bones as levers in executing their various movements, such as the muscles and bones in the feet, legs, hands and arms.

Another advantage of having the lungs composed of voluntary muscles is that it gives you the opportunity to practice deep breathing. The muscles can be trained to do this as automatically as the act of breathing is performed.

Muscle cells are in unceasing activity, whether we are awake and active or asleep, performing their part in the various vital processes.

## Nutrients needed by muscle tissue

Although muscle tissue is largely composed of protein, as stated earlier in this lesson, carbohydrates are the most efficient fuel source for both energy and heat.
Minerals are needed for proper functioning of the muscles. A lack of calcium is one cause of muscle cramps. (See discussion on mineral sources in Lesson 6 )

# W A T E R . . .

***For Thirst,— and More!***

Watchword

## "Water is the Best Liquid"

"*Water is the best liquid* possible to cleanse the tissues. . . Drink some little time before or after the meal." Ellen G. White, *Healthful Living*, 226

"Whether a person is sick or well, respiration is more free and easy if bathing is practiced. By it
the muscles become more flexible,
the body and mind are alike invigorated,
the intellect is made brighter, and
every faculty becomes livelier.

The bath is a soother of the nerves. It promotes
general perspiration,
quickens the circulation,
overcomes obstructions in the system, and
acts beneficially on the kidneys and the urinary organs.

Bathing helps the bowels, stomach, and liver, giving energy and new life to each. It also promotes digestion, and instead of the system's being weakened, it is strengthened. Instead of increasing the liability to cold, a bath, properly taken, fortifies against cold, because the circulation is improved, and the uterine organs, which are more or less congested, are relieved, for the blood is brought to the surface, and a more easy and regular flow of the blood through all the blood vessels is obtained."
Ellen G. White, *Healthful Living*, 228

*But whosoever drinketh of the water that I shall give him shall never thirst; but the water that I shall give him shall be in him a well of water springing up into everlasting life.* *John 4:14*

Water, the beverage that has been provided to satisfy the thirst of man and animals, is one of heaven's choicest blessings. Its free use helps supply the needs of the system, and aids in resisting disease. Pure, soft, water should be used freely, inside and out.

# Water, so essential to life!

Water, composed of the two gases oxygen and hydrogen, is the medium in which living cells live and function. Over two thirds of the human body is composed of water in some form or other. A person weighing 150 pounds has more than 100 pounds of water in his physical make-up!

Next to air, water is the most important substance needed by the body. It is absolutely essential for the various organs, and cells, to perform their various tasks. Water is so fluid and mobile it can circulate through the tiniest of capillaries, and by the process of osmosis can even slip through membrane.

However, to be a blessing to the system, water must be pure, and preferably soft. Hard water may contain some minerals needed by the body, but usually they are not the right ones, and being inorganic they are not the best for the system. Phosphate of lime is the principal constituent of bone tissue, but the main ingredient of hard water is carbonate of lime. Hard water is more likely to contribute to liver problems, and gall bladder or kidney stones. Organic minerals as provided by plants are the body's preferred type of minerals.

## Water is the body's solvent, diluent, lubricant, regulator, and cleanser:

The free use of water internally aids in the assimilation of nutrients, in elimination of wastes and toxins, and in chemical reactions so needful for life. Water is the *solvent* that keeps various chemicals in *solution* that break down the food and prepare it for absorption and use by the cells, or as hormones that regulate chemical-responsive activities in the body, which are legion. It keeps nutrients, chemicals, and waste matter in *solution* and floats them to their destinations within the body.

Blood thickens if not enough water is taken. This hinders its free circulation, adding an extra burden on the heart; and the kidneys, lungs, and pores of the skin are hindered in their work. Thick blood cannot adequately dissolve and remove toxic wastes, so they accumulate in the body all the way back to the cells, and the inside of the body may become like a stagnant pool. Water, the chief ingredient of body fluids, maintains them at the proper degree of *dilution,* when taken in adequate amounts.

It is the *lubricant* of all moving parts.

It *regulates* body temperature. All vital activities within the body produce heat. Heat thus generated could destroy the vitality of some tissues if it were not quickly dissipated. The evaporation of water from the surface of the skin cools the body. A great amount of heat is absorbed as water evaporates.

Water is a *cleanser* to keep the skin free from impurities thrown out through the pores of the skin. Also, as noted in the discussion of water as a solvent, it gives the body an "internal bath," purifying the medium in which the cells live and work,— quickening their work.
Just as plants shrivel if they do not have sufficient water, so body cells shrivel, and cannot function properly, if deprived of sufficient water.

Insufficient water intake, resulting in an accumulation of toxins in the body, can cause depression, hyponatremia, anorexia, and mental confusion.

See Ronni Chernoff, Thirst and fluid requirements, *Nutrition Review*, August, 1994, V52 b8, p83(3)

Some other common ailments and conditions that may develop when a deficiency in water intake is continued over a period of time are:

Lowered blood pressure

Headache, general weakness and discomfort

Digestive complaints, including constipation

An extra burden may be placed on the heart

Kidney and/or bladder stones

Severe infections

Muscle cramps

Chemical reactions within the cell may be impaired

Body temperature increases during vigorous activity. If sufficient water is not taken, the temperature will increase to a low fever, resulting in fatigue. Forcing water intake above that desired by thirst will keep the temperature within a comfortable range for continued activity.

**Caution:** Do not overdo, as body fluids can be diluted too much, resulting in severe symptoms.

Coffee, tea, soft drinks. and similar beverages, do not supply the place of water. They only increase the need for water. (See Lesson 5 for additional information on this topic.)

**Note: It is better to take water in small amounts frequently, than to take large amounts at one time.**

Thirst is not a guide:

Establish a water drinking schedule,

Take extra water during vigorous activity,

But not to an excess!

**Review the recommendations for daily water intake given in Lesson 1.**

**Drink enough water to keep the elimination of urine at about $^1/_2$ to 1 gallon per 24 hours.**

# Simple, but effective, water remedies.

Water has properties that make it an excellent remedial agent. It exists as ice, as a liquid, and as vapor or steam. Pure water below 32° F forms ice, it is liquid between 32° and 212° F, and at 212° it is converted into vapor. Each of these various states of water can be used in simple, but very effective, water treatments.

Water absorbs more heat when heated than any other substance. For example, it takes much more heat to raise a pound of water 1° in temperature than it takes to raise one pound of copper 1° in temperature. This property makes water an excellent agent for modifying the local or general temperature of the body.

Although water is not the best conductor of heat or cold, it does so much more readily than air. A person does not experience much discomfort in stepping outdoors when the temperature is 40° above zero; however, to dive into a pool of 40° water would be a shocking, and uncomfortable, experience. Water may be used in various applications as ice, cold water, hot water, and steam.

Water may be used to:

Equalize the circulation in the body
Stimulate activity of the immune system and internal organs
As a tonic, or sedative
Alter body temperature
And many other effects

By the application of:

Hot foot baths
Fomentations and heating compresses
Steam inhalations
Wet sheet packs
Contrast Showers, and more.

See *Recommended Reading* in the Appendix for some excellent books on this topic. They are well illustrated, and provide guidelines for the use and application of many simple water treatments, and other natural remedies.

# *PROTEIN... Is it No. 1?*

"If we plan wisely, that which is most conducive to health can be secured in almost every land. The various preparations of **rice, wheat, corn**, and **oats** are sent abroad everywhere, also **beans, peas, and lentils. These, with native or imported fruits, and the variety of vegetables that grow in each locality, give an opportunity to select a dietary that is complete without the use of flesh meats.** "
Ellen G. White, *Ministry of Healing,* 299

"It is the position of The American Dietetic Association that vegetarian diets are healthful and nutritionally adequate when appropriately planned."
*Journal of The American Dietetic Association,* November, 1993, 1317

## Bountiful provisions!

Our Great Designer has provided lavishly for our needs. He could have supplied nutrients wrapped in neat brown packages, every portion looking and tasting alike. But He has bountifully provided an array of foods attractively "packaged" in a variety of colors, each with its own texture, aroma, and flavor. Foods that may be eaten freely are made appealing by their colorful wrappings and flavorful aromas; whereas the more concen-trated foods come in subdued browns, whites, and yellows, and are more difficult to access and prepare, such as nuts, seeds, legumes, and grains.

## Consider protein, an essential nutrient

The name "protein" comes from a Greek word that means "primary, holding first place." It may be considered primary because it is an important nutrient as life cannot exist without it, but *not* important in the sense of *quantity* needed.

A great portion of our body weight, next to that of water, is made up of protein. Proteins are complex substances used in building and repairing tissue (together with fats), including muscles, tendons,

ligaments, organs, hair, and nails; the blood contains protein in solution; antibodies that ward off bacteria and viruses are proteins; and proteins are consti-tuents of hormones, enzymes, and most body fluids. Cell walls are bilipid membranes with some protein.

Natural proteins in their varied forms participate in vital chemical processes that sustain life.

Many wonder if a vegetarian diet will supply enough protein, and if all essential amino acids will be available in the right proportions. Are both *quantity* and *quality* adequate?

## How much protein do we need?

**Many nutritionists are recommending a protein intake of only 8-10% of total calories,—about 30 grams per day.**

"The average adult needs less than 30 grams of protein per day. All unrefined foods contain protein. . . . **On a natural diet, if one takes care of the calories, [generally] the protein will take care of itself."**

Agatha Moody Thrash, M.D., and Calvin L. Thrash, Jr., M.D., *Nutrition for Vegetarians*, 55

Dr. Thrash comments on the econom-ical use of protein in the body: "There are 380-400 thousand hemoglobin molecules in one red blood cell. Two million red blood cells are being produced in the body every minute. This requires an enormous turnover of protein. Fortunately the body is very efficient in conserving its building material, and much of the protein is reused again and again."
*Ibid.* 53

**Note the percent of total calories as protein calories in these foods.**

| | Percent Protein | | Percent Protein |
|---|---|---|---|
| Raspberries, red | 7.1% | Watermelon | 6.5% |
| Oranges | 7.0% | Casaba melons | 14.0% |
| Cucumbers | 14.7% | Tomato | 12.3% |
| Beans, snap | 14.5% | Broccoli | 27.5% |
| Carrots | 7.4% | Squash (winter) | 6.8% |
| Potatoes | 7.6% | Kale | 26.8% |
| Soybeans | 29.4% | Lima beans | 20.5% |
| Wheat (hard) | 13.3% | Rice (brown) | 7.1% |

On the low side:

| | | | |
|---|---|---|---|
| Apples | 1.2% | Plums | 2.5% |
| Grapefruit | 4.1% | Sweet Potatoes | 4.1% |

Did you notice that the percentages of protein in broccoli and kale exceed that of lima beans? Of course, measure for measure, fruits and vegetables do not yield as many total calories as legumes and grains; even so, some of them have fair amounts of protein.

A 3.5 oz servings of lima beans has 123 calories; but a 3.5 oz servings of kale has only 38, of casaba melon, 27, and of raspberries, 58.

Proteins in green leafy vegetables have as "high a biological value as muscle protein." (See next page.)

With such a wealth of protein that our Creator has placed in natural, whole foods, in the right proportions, there should be no concern about adequate plant sources of this essential nutrient. In fact, it is easy to get too much protein even on a vegetarian diet.

**The quantity of protein is adequate as supplied by a variety of natural, whole, plant-product foods.**

# Do plant foods supply all essential amino acids?

"Actually, the use of the terms, complete and incomplete proteins, is misleading, because all natural foods contain all of the essential amino acids, and no food protein is so perfect as to be the total answer to all our protein needs."
Agatha Moody Thrash, M.D., and Calvin L. Thrash, Jr., M.D., *Nutrition for Vegetarians*, 54 Referencing *Unusual Facts about Plant Protein*, Sans Scrips 6(6), November-December, 1972

Note that "*all* natural foods contain *all* of the essential amino acids." True, they are found in differing proportions. This is why a variety of foods should be used from day to day. An example is the way grains and legumes complement each other. Generally, legumes are low in methionine, but abundant in lysine; grains are low in lysine, but abundant in methionine. By combining legumes with grains the deficiency of the one is compensated for by the other.

However, it is not necessary to try to "balance" amino acid combinations at every meal, nor each day. "There is an amino acid pool from which amino acids are drawn to produce proteins and other compounds." It is good to provide a variety of proteins each day for the needs of the body.
Agatha Moody Thrash, M.D., and Calvin L. Thrash, Jr., M.D., *Nutrition for Vegetarians*, 54

Protein is absorbed more efficiently when the intake is normal or low, than when the protein intake high.
(See *Ibid.52]*

Studies show that whole soybean protein would be adequate as the only source of protein in the diet. Soybean protein has been shown to equal milk in promoting growth in infants, and maintaining proper nitrogen balance in children; and has nutritional values equal to that of egg and fish protein.
Vernon R. Young, *Journal of the American Dietetic Association*, July 1991 v91 n7 p828(8)

Soybeans might be adequate as the only source of protein, and they do have anticarcenogenic properties; however, they need not be eaten every day. They are a very rich food, high in fats as well as proteins, so should be used, but not too frequently. Soy protein isolate may be injurious. There are many other good plant sources of protein. Variety, variety, is the rule.

Even green leafy vegetables supply high quality proteins, and should be used more freely. They are excellent sources of minerals, vitamins, and enzymes, too.

"Schuphann in 1948 stated that the protein of dark-green leaves has as

high a biological value as muscle protein,—rated as growth-promoting for children."
Edith Young Cottrell, *Oats, Peas, Beans & Barley Cookbook,* 221; quoting from Werner Schuphann, *Eiweii B Forschung,* 1:32, January, 1948, p. 20

"The [leaf] protein is better nutritionally than most seed proteins, as good as many animal proteins, and can be presented at the table in palatable forms." *Ibid, quoting from*
N. W. Pirie, *Science* 152:1705. 1966

Do not neglect the greens! They should be used raw as much as possible. Use radish tops fresh from the garden. The tender leaves may be used in salads (no, they don't prickle the tongue), and the larger ones as greens in many dishes.

# What about excess protein?

Excess protein may cause many problems, including gastro-intestinal, liver, kidney and heart problems, as well as osteoporosis.

Protein does not burn "clean" when used as fuel. Amonia, toxic to the system, is produced as a by product. Purines from excess protein form uric acid when broken down. High levels of uric acid contribute to kidney stones, gout, and related diseases.

"It must be remembered that protein consists of amino acids. When you are on a high protein diet, you are on a high acid [ash] diet."
Jay M Hoffman, Ph.D., *The Missing Link,* 148

Calcium and other minerals are used in the process of eliminating sulfates, phosphates, and nitrogen end products from excess proteins. Calcium and other minerals used to neutralize the effects of excess protein are lost in the urine. If there is not an adequate supply of minerals in the blood, they are leached from the bones,— which contributes to osteoporosis. Animal proteins, which are high in sulfur-containing amino acids, seem to cause a greater calcium loss than vegetable proteins. Tests show that on a high protein diet the calcium balance remains negative, even when high levels of calcium are ingested.
See Winston J. Craig, *Nutrition for the Nineties, 134*

A high protein diet encourages rapid growth. This may appear desirable; however, rapid growth is associated with a short life,— early maturity with early decline.

# Processed, modified, plant-source proteins

As with carbohydrates, when proteins are refined most of the fibre and co-nutrients may be left behind. The co-nutrients (vitamins, minerals, and phytochemicals, etc) are needed for proper metabolism and utilization in body cells. In addition, the isolating process(es) may modify protein molecules, impairing their functions in the body, either in their ability to enter into needed chemical reactions, or to assist in forming structures.

Dr. Crane comments. "Soybean meal residue is the leading source of protein for meat and poultry animals. From this soybean meal, soy grits, soy flour, textured flour, soy protein concentrate, and soy protein isolate are made. Soy protein concentrate and soy protein isolate are of particular interest because these two have gone through extraction to remove the flatulence-causing sugars. Unfortunately, the extraction process also removes about 90 percent of the fiber and certain other very important chemicals. A better word might be subtraction process. *It is in this step also where solvents and heat may alter not only the remaining oils, but also the proteins.* A descriptive word for this step would be modification process." Dr. Crane goes on to say that modified proteins appear to have a detrimental effect in the body.

Milton G. Crane, M.D., What's New About Soya?, Weimar Institute *TIDINGS*, May/June '94. (Italics supplied)

## Points to remember

Of the twenty-two amino acids that have been discovered making up the various proteins, eight (nine for children) are essential. They must be obtained in the food we eat.

As shown in some of the foregoing references, all essential amino acids, in varying proportions, are found in all natural, unrefined, whole foods. A balance of these nutrients is available when a variety of natural foods are included in the diet. Each meal should be simple, the variety coming from meal to meal, and day to day.

A low, but adequate, protein diet economizes on this essential nutrient, as it is "absorbed more efficiently when the intake is normal or low".
There is no need to be concerned about "complete" proteins. The ratio of some amino acids varies between certain types of foods, but a variety of foods provide a balance

The body maintains a protein reserve from which it can draw to supply the needs of the moment. So it is not necessary to precisely balance protein nutrients at each meal, nor each day.

Green leafy vegetables have excellent proteins of high biological value.

Concentrated and/or isolated proteins are not good foods as some of the proteins may have been modified in the process so that they cannot func-tion properly in the body,— but may do harm. (See the definition of *food)*.

**Natural, whole, plant-source foods supply quality proteins.** Consuming adequate amounts of a variety of quality natural foods should supply adequate protein.

## Food for thought

Gazelles, that never seem to tire of running, eat grasses and other herbs of the range. But the flesh-eating lion must stalk his prey, as he can run but a short distance before tiring. Whole foods from the plant kingdom provide a power of endurance not available from animal-source foods.

## Some suggestions

The recipes with this lesson include some casseroles for satisfying entrees.

**Simple,** but **nourishing** stove-top main dishes may be prepared by combining a grain and legume in desired pro-portions. Simmer seasonings just long enough to lightly cook them. Over-cooked vegetables, especially onions, may well be the cause of stomach distress, rather than the legumes. Also, try smaller servings, if legumes do not seem to agree with you. They are concentrated foods.

For variety try shredded carrot or chopped greens to replace a tomato-base seasoning. Well-cooked wheat-berries may be added to seasoned pinto beans for a good "chili".

# Tips on the use of nuts

Nuts and seeds are mini packets of power nutrition, high in both protein and fatty acids, as well as minerals, vitamins, and other nutrients. They should be used sparingly as they are concentrated foods. Some people may not be able to use nuts, while others may feel the need of fairly rich preparations—at least as "bridges" until accustomed to a less rich diet. Those who have not been able to use nuts might find that they can use them if used sparingly.

The recommended ratio is one-tenth to one-sixth nuts/seeds in any given recipe including them. Some recipes have been included in this book that have a higher ratio of nuts for those who feel the need for extra richness.

Almonds and sunflower seeds are excellent foods. Almonds are known as the king of the nuts The legumes, peanuts, are rated at the low end of the nutritional scale. If peanuts are used, they should be used in limited quantities only, preferrably combined with grains.

The popular peanut is not the best of foods. **1)** Moldy peanuts, or peanuts contaminated with mold, are very harmful, as aflatoxin from the mold is a known carcinogenic substance. As peanuts are grown in hot, humid, climates mold is a real problem. 2**)** Chemical changes take place in fatty acids when nuts and seeds are roasted, similar to the changes made in free oils in the refining process(es). (see Lesson 4). Peanut butter made from roasted peanuts not only interferes with digestion, but the altered fatty acids clog the system. **3)** Peanut oil has been found to cause arteriosclerosis more readily than any other oil. (See Dr. R. W. Wissler's experiment on Rhesus monkeys. described in Lesson 4, page 10.)

Dr. J. H. Kellogg of Battle Creek Sanitarium and Hospital, introduced peanut butter to the Sanitarium

guests, and before he found out how harmful it was its use had spread over the whole country. When he realized the harmfulness of peanut butter, he discontinued its use, and made peanut spreads from peanuts that had been cooked like beans, or steamed peanuts, grinding them after they had been cooked. These spreads were not so harmful when made of choice peanuts and processed this way. A few raw peanuts may be added to a recipe such as the Tasty Soy Souffle, blending them with the other ingredients to be blended.

**Raw peanuts to be cooked or used in recipes, should be carefully sorted, and washed well.**

Note that roasting alters the chemical structure of fatty acids, even though they are still within the plant cell, so this problem relates to all roasted nuts and seeds. It is best not to use them. Raw nuts/seeds should be used judiciously in cooking and baking, or used "as is"—except, of course, peanuts that need to be cooked. Nuts and seeds included in baked foods are steamed in the interior of loaves, casseroles, and other baked products, not roasted. See Dr. Jay M. Hoffman, Ph.D., *The Missing Link,* 238, 70

# THE SKIN AND ITS FUNCTIONS

> "That which darkens the skin and makes it dingy, also clouds the spirits, and destroys the cheerfulness and peace of mind. . . . Every wrong habit which injures the health of the body reacts in effect upon the mind." Ellen G. White, *Healthful Living, 40*

## The skin, our marvelous wrapping

Forms a barrier against germs
Prevents the deeper tissues from drying out
Protects the body from harmful effects of too much light
Regulates body temperature
Provides the sense of touch
Produces vitamin D when exposed to sunlight.

## For a healthy skin

Pores in the skin are constantly passing impurities from the body. The skin and garments must be cleansed frequently so that these impurities will not be absorbed back into the body. It is most important to keep both the skin and garments clean, and not to hinder the skin in its effort to free the system of waste matter.

Frequent bathing and a brisk rub help to tone up the skin, open the pores, and keep the skin in a healthy, active condition.

Some cosmetics contain poisonous substances that can be absorbed by the pores of the skin. Care must be used in what we put on the body, as well as what we put in it.

The health of the entire body affects the health of the skin. A sluggish colon, or a muddy bloodstream full of toxic wastes, will make a muddy complexion. Also, free fats used in the diet, or applied to the skin, may be harmful to the skin when it is exposed to sunlight. (There is additional information on this topic in the next lesson.)

Many a young person suffering from acne might find relief by practicing a lifestyle in keeping with the **eight true remedies**.

The **Skin,** which is one of the largest organs of the body, is composed of two layers; the outer layer is the epidermis, the inner layer is the true skin, or dermis.

The outer skin has several layers. The outermost is composed of dead cells that may soon drop off or be washed away. Cells in the deeper layers are alive. It is here that new cells are constantly being formed. There are no blood vessels in the epidermis. Its cells are bathed in tissue fluid that comes from the dermis.

The dermis, or true skin, contains the elements and organs that perform the functions of the skin.

The true skin is a dense network of elastic fibres, interwoven with
- Minute blood vessels,
- Nerve endings, and
- Tiny lymphatic channels.

The true skin also contains:
- Hair follicles from which the hair grows,
- Sebaceous glands that produce a fatty matter,
- Sweat glands, and
- Minute involuntary muscles.

The minute muscles contract when chilled, causing a dimpling of the skin known as goose-flesh. They also contract when a person is frightened, making the hair “stand on end.”

Perspiration produced by the sweat glands serves a dual function. It helps:

- Remove toxic wastes.
- Regulate body temperature, cooling the body as it evaporates.

Nerve endings in the skin provide for the senses of touch, heat and cold, pain, etc. Numerous nerve endings are placed close together on the fingertips, providing an acute sense of touch. Hands are designed to accomplish skilled tasks.

**Care for your skin, and it will care for you.**

# *S U N L I G H T . . .*

### *A Healing Agent*

Watchword

**Sunlight,— a "Life-giving, Health-dealing Power."**

"This is one of nature's most healing agents." Ellen G. While, *Healthful Living,* 229

"The feeble one should press out into the sunshine as earnestly and naturally as do the shaded plants and vines. The pale and sickly grain blade that has struggled up out of the cold of early spring, puts out the natural and healthy deep green after enjoying for a few days the health and life giving rays of the sun. *Go out into the light and warmth of the glorious sun, you pale and sickly ones, and share with vegetation its life-giving, health-dealing power."*
*Ibid* 230

*But unto you that fear my name shall the Sun of righteousness arise with healing in his wings; and ye shall go forth, and grow up as calves of*

*the stall.* *Malachi 4:2*

Both sunlight and fresh air should be allowed free access to our homes. The sunlight may fade carpets and upholstery, but these agencies will improve the mental and physical health of those who live in the home. Sun beams are healing, and have a soothing, cheering, influence.

**Both exercise and sunlight**

| **Increase** | **Decrease** |
|---|---|
| Oxygen in the tissues. | Resting heart rate |
| Energy and endurance | Respiratory rate |
| Muscular strength | Lactic acid accumulation in blood |
| Efficiency of the heart | Blood pressure |
| Tolerance of stress | Blood sugar |

**From** Zane R. Kime, M.D., M.S., *Sunlight,* 33-41

# Some of the benefits to be derived from sunlight

"Exercise, and a free and abundant use of the air and sunlight. . . would give life and strength to the emaciated." Ellen G. White, *Healthful Living*, 230

**"In my experience, sunlight treatments in conjunction with an unrefined diet and exercise program achieve faster and more dramatic results than diet and exercise alone." Zane R. Kime, M.D., M.S., *Sunlight*, 57**

Dr. Kime further comments: "And a study of the results of combined sunlight and exercise, showed that a group that was getting the sunlight treatments with exercise, had improved almost twice as much as shown by their electrocardiograms, as had those who only exercised, even though both groups were on a general health resort treatment program." *Ibid.* 43

"There seems to be conclusive evidence that sunlight produces a metabolic effect in the body that is very similar to physical training. Tuberculosis patients being treated by sunbathing have been observed to have well-developed muscles with very little fat, even though they have not exercised for months." *Ibid.* 33

"The sun aids by increasing the resistance of the individual. Sunlight increases the production and stimulates the activity of the lymphocytes, neutrophils, and other cells of the immune system. . . . A strong immune system not only will help to protect one against the common cold, flu, and other infectious diseases, but can also inhibit cancer formation and progression." *Ibid* 188, 189

"In the deep valleys among the Alps in Switzerland the sun shines only a few hours each day; consequently the inhabitants suffer terribly from scrofula and other diseases indicative of poor nutrition and lack of sunlight. Higher up on the sides of the mountain the inhabitants are remarkably hardy and well-developed physically and mentally. The only difference in the modes of life is the great amount of sunshine higher up the mountainside. When

the poor unfortunates below are carried up the mountain, they rapidly improve."

Jay M. Hoffman, Ph.D., *Missing Link,* 318

Dr. J. H. Kellogg noted that hospital patients in rooms exposed to sunlight had a much better recovery rate than those in rooms without sunlight.

"**Sunlight** effectively **kills germs** in the air, **purifies water**, and **destroys bacteria** on exposed surfaces, including the skin, and **produces antibacterial agents** on the skin from the oils present there." Zane R. Kime, M.D., M.S., *Sunlight,* 188

# Some sunbathing guidelines

Avoid sunbathing during the heat of the day in summer as the sun's rays are more direct; however, to receive benefit from the winter sun it may be necessary to sunbathe during the middle of the day in northern and southern latitudes. The elevation should also be considered since sun-burning can take place more quickly at higher elevations.

Wash the skin in clear water before sunbathing to remove soap residue and lotions. Sunscreening lotions should not be used, as the fats they contain may stimulate formation of cancer cells. Also, many of the therapeutic and healing effects of sunlight are blocked out by sunscreening agents.

Start with short exposures to the sun's rays, gradually increasing the exposure time—avoiding sunburn.

Set an alarm clock to awaken yourself should you fall asleep, or have someone with you who will awaken you. See Zane R. Kime, M.D., M.S., *Sunlight 237-243*

The use of natural, whole foods builds healthy cells and an active immune system, and provides the right kind of fatty acids in the skin to react properly to sunlight. Sunlight is beneficial when these conditions exist. On the other hand, if there are free radicals and the wrong kind of cholesterol in the skin from consuming processed foods, and the immune system is depressed, exposure to sunlight is damaging, and may cause skin cancer. *Ibid.* 100-114

**Caution:** We should guard against an overdose of ultraviolet rays because of the progressive loss of the protective ozone layer surrounding the earth.

## Do I need to use a sunlamp in the wintertime?

"Sunlamps are only for those who cannot get the natural sunlight—those who live close to the north or south poles, or in inclement weather areas, or in the glass jungle of the big city. The artificial sun rays may be better than nothing, but they do not approach the value of the actual sunlight. Make every effort to obtain as much of the real thing as possible."

Benefits from sunlight are not limited to cloudless days, "since overcast skies filter out only about 20% of the ultraviolet light."

If you decide to use a sunlamp, be sure it has frequencies above 290 nm.

"Start with one or two minutes on each side and then gradually increase the time. If you become slightly pink following the light bath, hold the time and don't increase it until your skin has adjusted."

"Do not mount a sunlamp above your bed unless it has a timer that will shut off automatically when the light bath time is over, in case you should go to sleep. *Burning is dangerous, so don't take any chances.*" References are from

Zane R. Kime, M.D., M.S., *Sunlight,* 248, 249

# *FATS AND OILS. . .*

**Which, and how much, should we use?**

"When properly prepared, olives, like nuts, supply the place of butter and flesh meats. The oil, as eaten in the olive, is far preferable to animal oil or fat. It serves as a laxative. Its use will be found beneficial to consumptives, and it is a blessing to an inflamed, irritated stomach." "Olives may be so prepared as to be eaten with good results at every meal. The advantages sought by the use of butter may be obtained by the eating of properly prepared olives."

"The oil in olives is a remedy for constipation and kidney diseases."
Ellen G. White, *Counsels on Diet and Foods, 359, 360*

Fatty acids are used as building blocks, and for many other functions in the body. Every cell wall consists of a double (bilipid) layer of fatty acids, with some protein. The several workshops (organelles) within this double lining also have double linings of fatty acids, including the mito-chondrias,— the mighty little power-houses. Vital organs are cushioned by fatty tissues, and the immune system and many other functions in the body need the right kind of fatty acids

Nerve fibers are insulated with cholesterol; brain tissue contains high levels of it. It is a basic ingredient of some hormones, and in the skin it produces vitamin D when exposed to sunlight. Most of it is used in the digestion and assimilation of fats.

Cholesterol is not found in foods from plants, but it is in all animal-source foods. The liver manufactures large quantities of it, and nearly every cell in the body can make it. If the right kind of building blocks are furnished, the cholesterol synthesized by the body will perform its functions well.

Plant-source foods supply the kinds of fatty acids needed by the body. As they are essential nutrients, fatty acids need to be included in the diet. However, some concerns need to be considered so that right choices can be made, such as:

The *quantity* of fatty acids used. Free fats (fats removed from source) are highly concentrated, empty calories.

The *quality* of the fatty acids used in the diet. Some of the concerns about the quality include (1) altering of fatty acid molecular structure, (2) fatty acids as processed (preformed) by animals, fish, and fowl, and (3) oxidized, or rancid, fatty acids.

Fats as found in plant produce are designed for the needs of body cells. However, when these are removed from plant cells, and processed (which may even include changes made in roasted nuts) the structures and/or locations of the fatty acid chemical bonds are changed or altered so that they damage cell structures, and inhibit cell activities.

## *QUANTITY:* How much fat should be included in the diet?

Some nutritionists are recommending a fat intake of about 10% of total calories consumed, others increase the recommended amount to 15 to 20% of total calories. This last amount can be easily reached, even exceeded, without using any free fats. It is easy to exceed the limit if free fats are used.

Free fats are highly concentrated and refined. It takes 12 to 14 ears of corn to make 1 tablespoon of corn oil!

Gram for gram, fats yield about twice as many calories as do carbohydrates and proteins, yielding about 9 calories per gram; carbohydrates and proteins yield about 4 calories per gram.

## *QUALITY:* Some concerns about the quality of fatty acids in the diet.

(1) *Free fats* are not only highly concentrated; but, like white sugar, the refining process removes essential nutrients needed to properly metabolize the fatty acids. Also, the structure of some fatty acid mole-cules is altered during processing.

Fatty acids in natural foods are shaped like a horseshoe. They have many functions in the body, including forming cell walls (membranes).

Some of the fatty acids are changed from their natural horseshoe shape (called the *cis* form) to a straight chain-like structure (called the *trans* form) during the processing of free fats. Apparently a minor variation, but it makes a big difference in how the fatty acids perform in the body.

Many changes and problems result when *trans* fats are used as building blocks. The flow of nutrients and other substances cannot be con-trolled, such as the use of insulin and glucose; mitochondria are inhibited in their use of oxygen and cannot burn foodstuffs completely to carbon dioxide and water,— a basic cancer-producing process. The immune system needs the right kind of fatty acids to maintain the right shape and function of some of its cells. The more *trans* fats eaten, the greater effect they will have in altering the normal enzyme activity in the tissues.

See Zane R. Kime, M.D., M.S., *Sunlight,* 98 - 100,

(2) Dr. Crane speaks to the need for using fatty acids as found in plant foods. The essential fatty acids,

omegas 3 and 6, from non-plant sources have been transformed by the animal, fowl, or fish to meet the needs of their systems; and when the human body tries to use these partially processed fatty acids, the resultant chemical reactions may not be appropriate. The blood pressure, clotting time, and immune system are affected. These problems can be avoided by depending on plant produce for sources of fatty acids, which are designed for our needs.

Dr. Crane advises, "I would direct the reader to the use of plant produce as grown and away from the use of refined free fats, or animal fats, or fish fats." Milton G. Crane, M.D.,

Addendum to *The Role of Cholesterol and Excess Fat in Disease,* 12

(Information on omega fatty acids gleaned from the above referenced paper, and from *Vitamins, Minerals, and Essential Oils,* also by Dr. Crane.)

(3) Foods included in the diet should be in prime condition. Free radicals that are very harmful to the system are formed as fats oxidize, or become rancid. Antioxidant properties in whole seeds and unshelled nuts may preserve fatty acids for many years, but when the seed or grain is crushed, or the oil is removed from the plant cell, it may oxidize within a very short time. "Corn can be stored for up to a thousand years before it becomes so decomposed by oxidation that it will not grow. Yet, ground whole corn becomes too rancid, too full of oxidized lipids and hydrolyzed short-chain fats, to serve as food with-in a couple of months at room temperature."

Milton G. Crane, M.D.,*"Free Radicals" and "Anti-oxidants," Why are they important?* The Journal of Health & Healing, Vol. 16, No. 3, p. 18

"We need energy," comments Dr. Crane, "but in a controlled sequence and in a specific setting within the cell chemistry. Foodstuff is the source of calories to run the engine of every cell, and it must be supplied in an unoxidized form, ready for the body cells to use. If it arrives at the cell already oxidized, it may get in the way, and/or it may interfere with the cell's job of creating energy from the food supplied to it." "The Creator has supplied in the natural state, caloric sources within plant cell structures in a form and with protective mem-branes that resist oxidation. . . . We can help ourselves to avoid many of the degenerative diseases by selecting good fruit, vegetables, nuts and grains, by preparing them simply, and with-out the use of spices and grease of all kinds." *Ibid.* 17, 19

Along the walls of mitochondria, the minute but mighty powerhouses within cells, nutrients are burned in the presence of oxygen to produce heat and energy. These walls are very susceptible to damage by the action of free radicals. Damaged walls cannot use oxygen properly to burn nutrients all the way to carbon dioxide and water, but stop with

lactic acid, a reaction that does not require oxygen. It is a cancer initiating process.

See Zane R. Kime, M.D., M.S., *Sunlight*, 98

# Recommendations

Over 100 years ago Dr. John Harvey Kellogg, M. D., of Battle Creek, taught that, "The objection is not against fat, per se, but against taking it in a free state. When taken in the form in which nature presents them, enclosed in cells in such vegetable foods as maize, oatmeal, nuts, and some fruits, fats are wholesome and nutritious elements of food. It is only when separated from the other elements and taken in a free state that they become unwholesome. . . . It makes little or no difference, so far as the interference with digestion is concerned, whether the fat is animal or vegetable. . . we do not recommend the use of any free fat."

*J. H. Kellogg, M.D.*

*Health Reformer*, May, 1887

Again Dr. Crane comments: "In view of the fact that free fats are empty calories, may be modified during refining, delay stomach emptying, interfere with protein digestion in the stomach, and may become toxic radicals through oxidation, we conclude that free fats are an inferior food."

Milton G. Crane, M. D., *Another look at Fat in the Diet*, 5

# What about cold-pressed oils?

All oils, including cold-pressed oils, are heated during processing or they would turn rancid very quickly. This process changes some of the *cis* fats to *trans* fats; also, rancidity worsens during processing and storage.

# Sound advice:

**"Grease cooked in the food renders it difficult of digestion."**

Ellen G. White, *Healthful Living*, 95

According to Webster *grease* is: "Fatty or oily matter in general; lubricant."

"Meat is served reeking with fat, because it suits the perverted taste. Both the blood and the fat of animals is consumed as a luxury. But the Lord has given special directions that these should not be eaten.

Why?—Because their use would make a diseased current of blood in the human system. Disregard of the Lord's special directions has brought many diseases upon human beings."

*Ibid. 94*

What are the Lord's "special directions"? Here is one reference:

*It shall be a perpetual statute for your generations throughout all your dwellings, that ye eat neither fat nor blood.* *Leviticus 3:17*

## Some data

In the typical American diet about **37%** of the calories come from fats (about one third of these are from saturated fats). This is nearly twice the recommended amount! The major sources of fat in the diet are: fats and oils, meat, poultry, fish, and dairy products.

Note the average per capita consump-tion of free fats, and dairy products, which are high in fats. The total average consumption of fats would be increased considerably by adding to these figures the fat content of the average amount of flesh foods consumed.

**In 1990 the average American consumed:**

**63** pounds of free fats and oils (including 4.4 pounds of butter)
**570** pounds of all dairy products (excluding butter, but including 50 pounds of cheese, cream, and ice cream)

**Are there sufficient fats in natural whole foods to meet our needs, without using *some* free fats?**

Some fruits and vegetables have low percentages of calories as fat. Bananas and peaches have about 2%, and potatoes only about 1%. However, many foods have a fat content close to the 10% minimum. By using a few high-fat foods the intake may easily meet the recommended 15 to 20% of total calories without the use of free fats. Again, our Creator has generously provided for our needs in natural whole foods.

If you feel a need for some free fats, use just a few drops of extra-virgin olive oil at the table (not in cooking).

**Note the percent of total calories as fat calories in these foods:**

| | |
|---|---|
| Fruits: | |
| Apples | 5.5% |
| Avocados | 82.2% |
| Grapes, American | 12.1% |
| Lemons | 9.5% |
| Strawberries | 11.4% |
| Olives | 93 - 98.0% |
| Grains: | |
| Cornmeal | 9.2% |
| Millet | 7.9% |
| Rolled oats | 15.9% |

| | |
|---|---|
| Legumes: | |
| Chickpeas | 11.2% |
| Soybeans, dried | 36.8% |
| Nuts: | |
| Almonds | 75.9% |
| Walnuts | 79.1% |
| Vegetables | |
| Broccoli | 7.8% |
| Kale | 17.6% |
| Parsley | 11.4% |

## Obesity: Considered one of the major health problems in America.

"Overweight individuals are at an increased risk of

Diabetes,
High blood pressure and stroke,
Elevated blood lipids and heart disease,
Cancer (especially breast and uterine cancer),
And gallbladder disease." Winston J. Craig, Ph.D., R.D., *Nutrition for the Nineties, 13*

There is hope for the obese! Practicing the **eight true remedies** will not only make a person feel better, but also look better as the pounds drop off. Usually there is no need to count calories, since a well balanced diet of whole, natural foods is satisfying. This satisfaction removes the constant craving for something to eat!

**Obesity is not the only health problem that may result from the use of free fats, and/or too many fats, in the diet. Read on.**
Cells may be deprived of oxygen because of shallow breathing, lack of exercise, and many other reasons. Note the effect of polyunsaturated fats on the oxygen supply to body cells as described in this experiment!

Some effects of fats in the diet were shown in experiments with hamsters. Their cheek pouches have such thin walls that red blood cells can be seen, with the aid of a microscope, going through the capillaries. When the hamsters were fed a high fat diet the red blood cells would get sticky and clump together, and could not get through the capillaries. It was found that the hamsters were getting not even half of the normal oxygen supply to body cells, including the brain. The red blood cells were hampered in their work both because clumping reduced the surface area available for carrying oxygen, and because they could not move freely through the capillaries to deliver what little oxygen they were carrying! This shortage of oxygen can affect every part of the body, including brain function.

See Jay M. Hoffman, Ph.D. *The Missing Link*, 63; from R. L. Swank, *Proceedings of the Society of Experimental and Biological Medicine,* 82:381, 1953;

Cells deprived of oxygen, or hindered in the use of oxygen (such as damage to mitochondrias by free radicals), cannot completely metabolize fuel. Note the loss of energy production in the cycle ending with lactic acid.

| **Metabolism of normal cell** | **Metabolism of cancer cell** |
|---|---|
| **Sugar or glucose** | **Sugar or glucose** |
| Oxygen required | Oxygen not required |
| Complex reaction | Relatively simple reactions |

| | |
|---|---|
| requiring over 30 steps | |
| 38 units of energy produced | 2 units of energy produced |
| **Byproducts** | **Byproduct** |
| Carbon dioxide and water | Lactic acid |

See Zane R. Kime, M.D., M.S., ***Sunlight*** **96**

"Normal cells have been removed from experimental animals and placed in a culture where they will grow and divide. If the oxygen that is available to these cells is reduced, the normal cells will become malignant. If these cells are again placed in the animal's body, they will develop and destroy the animal with cancer." *Ibid 96*

**Free fats cause red blood cells to clump, reducing oxygen carrying ability.**

**This, and the action of free radicals, hinders efficient cell metabolism.**

**Normal cells become malignant when deprived of sufficient oxygen and energy.**

## Don't polyunsaturated fats lower cholesterol levels in the blood?

Dr. R. W. Wissler performed an interesting experiment using Rhesus monkeys. All of them were fed the same diet, except for the fat content. The food included either butter fat, corn oil, or peanut oil.

**Results**: A few months later it was found that the monkeys on butter fat had the highest cholesterol in the bloodstream, and the monkeys on peanut oil the least, as might be expected.

However, a few months later autopsies showed:

| Percent of arteries damaged by cholesterol plaques; hardening of arteries. | Type of oil in the diet |
|---|---|
| 62% | Corn oil |

| | |
|---|---|
| 82% | Butter fat |
| 93% | Peanut oil |

R. W. Wissler, M.D., *Federation Proceedings,* 26:371, Abs. #650, 1967; Referenced by Jay M. Hoffman, Ph.D., *The Missing Link*, 62

**Polyunsaturated fats may lower serum cholesterol, but harden the arteries and/or may be deposited in other tissues.**

Dr. Crane speaks to damage that may be done by excess low density lipoproteins (LDL): "In some manner, not yet completely understood, when oxygen attacks natural LDL, some of its protein gets changed, and the complex becomes 'modified LDL.'" Body cells do not recognize, nor can they use, modified LDL. "Yet the immune defense macrophages (big-eaters) identify it as a foreign chemical and begin to gobble it up. They ingest more and more until they simply plug up the arteries.

"To complicate the picture further, another ball of fat similar to LDL, called lipoprotein(a) [LP(a)], can build up in the body. . . . It too must be disposed of by the same monocyte-macrophage system. It may result from an excess of fat, ingested oxidized fat, and/or the presence of modified protein in the diet.

"Two main factors, then, work together to plug up the arteries. (a) A diet which has just too much fat that is already oxidized [rancid] to a greater or lesser degree. (b) A high fat diet that has so much good unoxidized fat that the body sends too much LDL to the cells via the arteries for them to utilize. While these excess LDL particles are waiting around in the tissue juice of the artery wall, the oxygen which is right there on its way to the cells can attack the LDL and modify its protein component. Once this happens, the cells cannot safely use it, and the monocyte macrophage 'big eaters,' gobble it up."

Milton G. Crane, M.D., Good Cell Food Keeps the Arteries Open, 2-5 (with many references)

**Free fats and rich foods do not meet the definition of *food* (see Lesson 1) as they cause injury to the system.**

# Is there a remedy if harm has been done?

Plant fibers, such as in oat bran, are useful in lowering serum cholesterol in the blood. Pectin, also a plant fibre which is found in fruits and some vegetables (as squash and carrots), together with gums and mucilages which occur in legumes, are also effective in reducing serum choles-

terol levels. (See Winston J. Craig, Ph.D., R.D.,
*Nutrition for the Nineties,* 37

Dr. Crane gives encouragement:

"The secret of success is to avoid eating foods that contain added fat. We should eat fresh foods as grown and avoid spoiled, rancid foods. Even the naturally high fat foods such as the nuts, olives, high fat seeds, and avocados should be used in modera-tion. Also, they should be stored properly and eaten as fresh as possible to avoid damage to them from oxygenation. Freshly shelled nuts like filberts, pecans, and walnuts are much better than those which come already shelled. But we have become a nation in search of fast foods and con-venience. The nuts like the walnut have such good oils in high concentra-tions, that they become 'stale' more readily than other nuts. Staleness is the same as oxidation. Perhaps you begin to see what we are up against."

Milton G. Crane, M.D.,
Good Cell Food Keeps the Arteries Open, 5

Dr. Crane explains how cholesterol deposits that have gradually accumulated over the years can be removed: "The good news is that this extra cholesterol can be removed. . . .

". . . Our goal is to reverse that process. We advocate (1) a low fat diet so that the person will make only minimal amounts of cholesterol in the liver and intestines, (2) avoidance of the foods that contain cholesterol from the diet, and (3) use a high fiber diet so that there will be a high elimination of cholesterol from the body, and (4) exercise to raise the level of the good HDL."

Milton G. Crane, M.D., The Role of
*Cholesterol and Excess Fat in Disease, 3, 4*

The oxygen carrying capacity of the blood improves within a short time after discontinuing the use of isolated, processed fats/oils, animal fats, or other processed "foods" that cause blood platelets to clump together.

Exercise improves muscle utilization of oxygen, and the demand on the muscles encourages the body to make collateral blood vessels to an area that may have suffered blockage,— the body's own bypass system (for non-emergency situations). Consult your physician for an exercise program to meet your needs.

The use of refined foods lacking essential nutrients,and/or
Processed foods with transformed/modified molecules, and/or additives,
And/or, an imbalance or excess of nutrients, even from natural, whole, foods,
Results in faulty membrane and tissue structures, and/or,
Slowed, blocked, or altered biochemical reactions,— **Disease.**

Practicing the **eight true remedies**,
Including adequate but temperate use of natural, whole foods, results in
Good membrane and tissue structures, normal biochemical reactions,— **Health**

# *THE HEART AND BLOOD*

**"Perfect health depends upon perfect circulation."**
Ellen G. White, *Healthful Living,* 178

**"The more active the circulation the more free from obstructions and impurities will be the blood. The blood nourishes the body. The health of the body depends upon the healthful circulation of the blood."** *Ibid.* 178

"The heart, a most efficient hollow muscular pump, is really a double organ—it may be considered as two hearts joined together:

The left heart supplies freshly oxygenated blood to the body.

The right heart sends the blood loaded with carbon-dioxide to the lungs for a fresh supply of oxygen.

Maintenance of the proper volume and pressure depends on many factors, including:

The condition of the heart valves,

The effect of the nervous system in controlling size of the vessels, and

The amount of fluid in the blood stream."
Clifford R. Anderson, M.D., *Modern Ways to Health,* 450

"It is almost impossible to strain the healthy human heart by overwork. . . . The heart is far more likely to be damaged by disease and by poor habits of living than by any physical activity. But once the heart has been damaged by disease, it may be necessary to avoid too much activity. A heart that has been damaged can be strained beyond its limits."
*Ibid. 450, 451*

"The chief if not the only reason why many become invalids is that the blood does not circulate freely, and the changes in the vital fluid which are necessary to life and health do not take place. They have not given their bodies exercise nor their lungs food, which is pure, fresh air; therefore it is impossible for the blood to be vitalized, and it pursues its course sluggishly through the system." Ellen G. White, *Healthful Living,* 180

## There are three classes of blood vessels

**Arteries**, which have elastic muscular walls, carry the blood away from the heart. The propulsive impulse given the blood by the contraction of the heart, is followed by the contraction of the arteries. The smaller arteries, or arterioles, regulate the pressure into the capillaries.

**Capillaries**, smallest of the blood vessels, form an intricate meshwork through all the soft tissues of the body. They are so small that the tiny red blood cells have to squeeze through, single file, bulging out the capillary walls as they go.

**Veins** begin with the capillaries, increasing in size as they approach the heart. They have little or no muscular fibre in their walls, but in some parts of the body they have valves which allow passage of blood in only one direction—toward the heart.

Veins are so placed among the muscles that when the muscles are contracted the blood is displaced. As it can flow in only one direction, it is "milked" back to the heart by the aid of muscle action. Thus, exercise is a valuable aid to the heart.

## Blood cells and their tasks

**White blood cells** are able to move from point to point rapidly and with ease. They are voracious eaters,— of germs and debris. Their principal functions are to:

Destroy germs
Aid in repairing injuries

The chief business of the **red blood cells** is to carry oxygen from the lungs to the tissues, and carbon dioxide and other gaseous wastes from the tissues to the lungs. Blood that is not vitalized with pure, fresh air pursues its course sluggishly through the system, but it circulates healthfully when it carries an abundance of oxygen.

See Ellen G White, *Healthful Living,* 186

## The lymph system

The principal function of the **lymph system** is absorption. Its one set of vessels originate in connective tissue spaces in all parts of the body, connect with lymph glands in certain locations, and eventually empty the

lymph fluid into the subclavian veins. White blood cells, which have escaped through artery and capillary walls to do their work, find their way back to the blood vessels through this system.

The lymph system absorbs:

Nutrients through villi in the intestines, and water and other substances through the skin.

Wastes and worn particles throughout the body.

Lymph fluid is similar to blood serum, except that it contains more of the waste elements than does blood.

# Helps and hindrances to good circulation

"For an average-size adult, the heart must move about five quarts of blood every minute, a total of 7,200 quarts in 24 hours.

"It must push this load through a network of blood vessels some 100,000 miles long."

Fortunately, the heart is aided in this staggering task. "The muscles in the feet, calves, thighs, buttocks, abdomen, and diaphragm all work together in harmony when one walks. Their rhythmic contraction and relaxation massages the veins, pushing the blood upward against gravity. As one walks, the muscles literally milk the blood back to the heart." Jabbour Semaan, *Walk for Your Health, Review, 07/20/78, p. 6*

Scientists have pondered how red blood cells could carry such large loads. They have recently found that water increases the ability of hemoglobin (the protein pigment in these cells) to carry oxygen. Water molecules attach themselves to the hemoglobin, which makes it easier for oxygen molecules to attach themselves. They studied this behavior of hemoglobin in plain water as compared with various concentrations of sugar and polymer solutions, and found that the more concentrated the solution (either sugar or polymer), the harder it was for hemoglobin to take on water molecules—and the less inclined to take on oxygen! (From Elizabeth Penniel, *Water Boosts Hemoglobin's Lust for Oxygen*, Science News, March 30, 1991, v139, n13, p198(1))

# Hygiene of the circulation

**Exercise** is very important. Review Lesson 2 on exercise.

**Adequate clothing** is essential to healthy circulation. The prime object of clothing is for modesty, yet it should be adapted to the climate and season to maintain the natural tem-perature of the extremities as well as the body. Blood cannot circulate freely when the limbs are cold. **Cold** has a paralyzing or depressing influence on the heart. Excessive **Heat** may result in heat or sun-stroke.

**Rich or spicy foods** make poor blood by filling it with useless, or a super abundance, of material. This causes the liver to become sluggish, and wastes accumulate in the blood. **Con-diments**, **narcotics,** and **stimulants** also are harmful. (See Lesson 5)

The **circulation** and **function** of the **internal organs** should not be **impaired** by tight belts or elastic bands, nor heavy garments suspended from the waist.

The **blood** must be kept **pure.** Only the very best material should be taken into the stomach, as the blood is made of what we eat. Poor food will make poor blood, which will in turn make body tissues of poor quality.

For **cells** to be healthy, they must have the right nutrients delivered to them through the blood stream, and wastes removed by the blood and lymph and carried to the eliminating organs. This helps us to understand the statement at the beginning of this section, **"Perfect health depends upon perfect circulation."**

# *TEMPERANCE . . .*

## *The Only Safe Course*

Watchword

**"Touch Not, Taste Not, Handle Not"**

> "The only safe course is to *touch not, taste not, handle not,* tea, coffee, wines, tobacco, opium, and alcoholic drinks." Ellen G. White, *Healthful Living, 112*

**Temperance is abstinence from all things/practices that are harmful, and judicious use of that which is good.**

This topic covers much more than abstinence from alcoholic beverages, tea, coffee, tobacco and other narcotics. Many commonly used items are harmful to the body, yet many people are unaware of the damage done by them. Throughout this lesson keep in mind the definition of *food* as given in Lesson 1. Food nourishes, without doing harm!

And what about the judicious use of that which is good? Not just the *quality* of foods or activities needs to be considered, but also the *quantity*. Exercise is good, but when engaged in too strenuously, or for too long, the

effects are harmful. The best quality foods should be used, but when taken in excess even good food will be harmful to the system. The same is true of all the activities of life. All intemperance weakens brain-nerve powers. Good physical habits help to strengthen the mental and moral powers, as there are strong ties between physical and moral health. Moderation in all things is the key.

Keep in mind those important little cells as you study this lesson. They depend on you to help keep them functioning efficiently. Things taken into the system that impair their efficiency will keep you from attaining the maximum health possible for you.

**Choose something better.** Our Creator has supplied us with an abundance of good things that bring true enjoy-ment. Once the choice is made, claim the promises of abundant grace avail-able to give strength to the decision.

*He sent His word, and healed them, and delivered them from their destructions.* *Psalms 107:20*

*I can do all things through Christ which strengtheneth me.* *Philippians 4:13*

**"All our enjoyment or suffering may be traced to obedience or transgression of natural law."**
*Ibid. 22*

# Spicy problems

"In this fast age, the less exciting the food, the better. Condiments are injurious in their nature. Mustard, pepper, spices, pickles and other things of like character, irritate the stomach and make the blood feverish and impure. The inflamed condition of the drunkard's stomach is often pictured as illustrating the effects of alcoholic liquors. A similar condition is produced by the use of irritating condiments. Soon ordinary food does not satisfy the appetite. The system feels a want, a craving for something more stimulating." Ellen G. White, *Ministry of Healing* 325

Webster defines spice as "A pungent or aromatic vegetable substance as pepper or cinnamon used to season food."

Generally, the "pungent or aromatic vegetable substances" that are hot to the taste when cold are harmful.

Spices not only irritate the tender coating of the stomach, but also cause the blood to become fevered, excite the nerves, and weaken the moral and intellectual powers. Foods prepared with these irritating substances encourage the appetite for liquor.

Condiments and spices have a stimulating effect similar to tea, coffee, and liquor. Those who use them drop as far below par as they were elevated above par by these stimulating substances.

Foods should be wholesome and tasty, but free from every irritating substance that would harm the delicate machinery of living cells.

**"Professor Boix of Paris showed by experiments on animals that pepper causes 'gin liver.'"** Jay M. Hoffman, Ph.D., *The Missing Link,* 87; quoting from John H. Kellogg, M.D., FACS, *How to Have Good Health Through Biological Living,* 459-461

What is "Gin Liver"? Another term for cirrhosis of the liver.

**Capsaicin,** a substance found in hot peppers, has long been known to affect small nerve cells (type B) that transmit a variety of sensations to

the brain, including pain. There is no protective myelin sheath on the fibers through which these cells communi-cate. Capsaicin can destroy type B nerve cells in infants; in adults the first strong dose causes intense pain, but continued use desensitizes the neurons. Thus pain is actually killed. Reporting pain is not the only responsibility of Type B neurons; they also help regulate body temperature and monitor important functions in the heart and lungs. Therefore, capsaicin could be very dangerous if it should get into the blood stream. This can happen even when applied locally. *Hot Pepper Pain Clue, Science Digest*, September 1983, 81

# Must my food be bland and tasteless?

**No!** Spices tend to dull the sensitive taste buds. Leave the spices out, and soon the natural food flavors will be perceived and enjoyed. Also many herb seasonings may be used to enhance the natural flavors of foods; herbs that are not only harmless, but may also add trace elements not other-wise found in the diet.

| **With** | **Try a touch of:** |
|---|---|
| Asparagus | Chervil, tarragon |
| Beets | Anise, dill, summer savory, tarragon, thyme |
| Cabbage | Dill, basil, summer/winter savory, tarragon |
| Carrots | Anise, marjoram, oregano, sage, thyme |
| Corn | Marjoram, oregano, sweet basil |
| Cucumber salads | Anise, dill |
| Eggplant | Basil, chervil, marjoram, sage |
| Green beans | Dill, sweet basil |
| Green salads | Sweet basil, chervil, chives, marjoram |
| Lentils | Fennel, rosemary, sage and thyme |
| Peas | Dill, marjoram, oregano, rosemary, sage |
| Potatoes | Chives, dill, oregano, rosemary, thyme |
| Squash | Fennel, rosemary, |
| Tomatoes | Sweet basil, bay leaf, oregano, sage, thyme |
| **Good with most vegetables:** | Caraway, chives, parsley |

**Fruits**

| | |
|---|---|
| Apples | Dill |
| Fruit compotes | Anise, sweet basil, |
| Fruit salads | Mint, rosemary |
| Pears | Dill, summer savory |

**Spices do not qualify as *food* as they cause injury, and impair functional activity. Review the definition of *food* given in Lesson 1.**

# Vinegar too?

"The salads are prepared with oil and vinegar, fermentation takes place in the stomach, and the food does not digest, but decays or putrefies; as a consequence, the blood is not nourished, but becomes filled with impurities, and liver and kidney difficulties appear."

Ellen G. White, *Counsels on Diet and Foods,* 345

Vinegar contains acetic acid. The same fermentation process by which alcohol is produced results in acetic acid when the process is carried a little farther. Vinegar is much more irritating to the digestive organs than an alcoholic liquor of the same strength. Even in a small quantity it completely prevents the action of saliva on starch. (From J. H. Kellogg, M.D., *The Home Book of Modern Medicine,* 289)

Vinegar also lowers the alkaline reserve of the blood, is said to aid in destroying red blood cells, hinders the digestion of protein, and is an active agent in liver damage (cirrhosis). Julius Gilbert White, *Abundant Health* , 131; referencing *Health,*, October 1935, page 29 ; and J. H. Kellogg, M.D., *Question Box,* 312

Vinegar is an ingredient in many prepared foods, from salad dressings and baked beans to pickles, green stuffed olives, and even some commercial breads. Meals are more satisfying and enjoyable when they include a variety of flavors, including tart flavors, but these should come from natural, wholesome, tart foods such as lemons and limes. Though acid to the taste, they metabolize to an alkaline ash, so increase the alkaline reserve of the blood, rather than reducing it as vinegar does.

Lemon and/or lime juice make excellent salad dressings,— much better than vinegar. Orange segments or juice may be added for the sweet/sour effect, and a little of the grated rind (zest) may be added for extra flavor and nutrients. Citrus fruits blend well with either a fruit or vegetable meal. Lemon and/or lime juice may also be used in the preparation of most other foods, such as baked beans, where vinegar may have been used in the past.

# Baking powder and soda

The chemicals in baking powders do not qualify as foods under the definition of foods in Lesson 1. They leave various harmful residues in baked products. Many baking powders contain aluminum salts. Soda is harmful, and should never be taken into the system.

# Stimulants

"Tea and coffee do not nourish the system. The relief obtained from them is sudden, before the stomach has had time to digest them. This shows that what the users of these stimulants call strength is only received by

exciting the nerves of the stomach,

which convey the irritation to the brain, and

this in turn is aroused to impart increased action to the heart,

and short-lived energy to the entire system.

All this is false strength, that we are the worse for having. They do not give a particle of natural strength." Ellen G. White, *Healthful Living,* 108

**"Tea has an influence to excite the nerves, and coffee benumbs the brain; both are highly injurious."**
***Ibid.*** 107

A person who is enjoying good health does not need stimulants to start the day, nor later during the day, in order to function. A well-nourished cell will have an ample supply of glucose, and if the cells have been furnished with the right kind of building blocks and plenty of oxygen, they will be able to burn the fuel efficiently to provide needed energy.

Stimulants do not furnish the body with needed resources, but cause cells to burn reserve fuel. Because the stimulant gives an agreeable sensa- tion, people think they need to use them. But the short-lived increase in energy is followed by depression, which calls for more stimulation. Continued use weakens the nervous system.

Those who use tea, coffee, and similar products show the results on their countenances. Their skin becomes sallow and appears lifeless,— the glow of health is gone

They also place an extra workload on the kidneys. Kidneys were designed to remove uric acid and other water soluble wastes from the body. These waste materials result from metabolism of healthy cells, but as waste materials they must be removed to keep the cells healthy. An additional burden is placed on the kidneys when they must also attempt to remove purines and related compounds taken into the system from flesh foods, tea, coffee, chocolate and cocoa, and other products containing these compounds.

# The case against purine and its relatives

The dictionary defines *Purine* as "a white, crystalline compound, $C_5H_4N_4$, from which is derived a group of compounds, including uric acid, xanthine, and caffeine."

Caffeine is found in coffee, tea, mate, and chocolate, together with other harmful substances.

Caffeine is also normally found in soft drinks that use the name cola or pepper. A 12-oz can may contain 30-55 mg. of caffeine.

"Stay-awake" tablets contain 100 to 200 mg. of caffeine each.

Non-prescription medicines used for headache or allergy relief, as well as cold tablets, may contain 15 to 65 mg. of caffeine per tablet.

Winston J. Craig, Ph.D., R.D.,
*Nutrition for the Nineties,* 281

"The chemical purine, which is found in all dead flesh, is almost identical to that of the purine which is found in coffee, tea, chocolate and cocoa. Here is a chart to show how much purine there is in the items listed below.

**PURINE BODIES IN BEVERAGES**

| | |
|---|---|
| Tea | 1.2 grains per pint |
| Coffee | 1.7 grains per pint |
| Chocolate | 0.7 grains per pint |
| Cocoa | 1.0 grains per pint |

"All dead flesh contains uric acid and purine bodies. Now let us notice how closely related this is to caffeine and theobromine. Uric acid ($C_3H_4N_4O_3$) and the purine bodies as xanthine and hypoxanthine etc., are very closely related both chemically and physiolo-gically to each other and to the caffeine ($C_8H_{10}N_4O_2$) of tea and coffee and the theobromine ($C_7H_8N_4O_2$) of cocoa. Anyone wishing to eliminate purine bodies from his diet should eliminate all meats, tea, coffee, cocoa, chocolate, colas and any soft drinks containing caffeine."

Jay M. Hoffman, Ph.D., *The Missing Link,*44

**The chemical formulas for caffeine and theobromine are so similar that they are called "relatives or twin sisters."**
***Ibid.* 39**

"Decaffeinated coffee is just as bad as regular coffee. The solvent commonly used to extract caffeine from the coffee beans is methylene chloride, a chemical suspected of causing cancer. Despite its name, decaffeinated coffee does contain caffeine, between 2 and 15 milligrams or more per cup, depending on how it is brewed. In the extracting process of removing caffeine from coffee, the caffeol is made more concentrated. Caffeol is the oil which gives the aroma and flavor to coffee. As stated before, caffeol irritates the mucous membranes of the stomach; it irritates the liver, the kidneys, the bladder; and in some cases, causes cancer of the bladder." *Ibid.* 42

# Caffeine adversely affects

Digestive system, body chemistry, brain and nervous system, heart and circulation, in addition to an increased kidney workload.

It has a diuretic action, produces breast lumps [fibrocystic breast disease], and may cause birth defects, among other physical disorders.

Winston J. Craig, *Nutrition for the Nineties,* 284. (Many references cited)

Caffeine is stimulating to the central nervous system, but it results in a compensatory depression. Mental activity may be very rapid, but it is often inaccurate during the excitement phase. Exhaustion, nervousness, irritability, fatigue, and often headache may be experienced in the depressed phase.

Symptoms of long-continued use of tea includes: irritability of temper, mental irritability, muscular tremors, and sleeplessness. J. H. Kellogg, M.D.,
*The Home Book of Modern Medicine,* 524

# A closer look at cocoa and chocolate

"All cocoa contains theobromine, a nerve poison. . . Chocolate and cocoa are altogether unwholesome and if freely indulged in may easily induce

conditions which may be attributed to some nerve disorder."

Jay M. Hoffman, Ph. D., *The Missing Link,* 48, quoting
John H. Kellogg, M.D., *Health Question Box, 360*

"Chocolate and cocoa products may have additional problems other than their caffeine levels. Epidemics of salmonellosis due to Salmonella-infected chocolate or cocoa have been reported during the past two decades. . . . Chocolate also has been associated with such allergic reactions as skin disorders, headaches, gastrointestinal symptoms, respiratory problems and nose bleed." Winston J. Craig, Ph. D., R.D.,
*Nutrition for the Nineties,* 288

Standards for the use of cocoa and chocolate in various products permit a high percentage of animal wastes/residues to be included. "Cocoa and chocolate are prepared from the residue left after extraction of the highly valued cocoa butter which is used for covering chocolates. . . . Farmers were induced to feed the residue to chickens, The fowls pined and egg production fell off. It was fed to cows. The milk production diminished. . . . It was offered to the farmers for fertilizer. The crop return instead of increasing was lessened. This is the story told in a bulletin sent out by the U. S. Department of Agriculture.

"Cocoa residue is so poisonous to cattle, chickens, even the soil, the farmers are warned by the government against its use! Cows, chickens, even the soil must be protected. But how about human beings? There are millions of men and women drinking cocoa and chocolate and eating quantities of chocolates, and giving them to their children, supposing them to be harmless." Jay M. Hoffman, Ph. D.

*The Missing Link,* 48, 49; quoting
John H. Kellogg, M.D., *Health Question Box, 456, 457*

# Tobacco, alcohol, and other drugs

**"Our tables should bear only the most wholesome food, free from every irritating substance. The appetite for liquor is encouraged by the preparation of food with condiments and spices, These cause a feverish state of the system, and drink is demanded to allay the irritation."**

Ellen G. White, *Healthful Living,* 92, 93

Tobacco is a poison. Its action may be slow, but it is insidious and sure. Tobacco poisons are more difficult to cleanse from the system, than are those of liquor.

The atmosphere in a room or other enclosed area, may become so impregnated with the properties of tobacco and liquor that it is not only unpleasant, but dangerous, to continue to breath the contaminated air. Many reports document the fact that "second-hand" smoke is as harmful, or more so, to the non-smoker, as is the harm done to the smoker.

The true seeker for health will break away from every health-destroying habit, and those not indulging in these practices will make every effort to avoid breathing contaminated air.

"The poison contained in a single pound of tobacco is sufficient to kill three hundred men if taken in such a way as to secure its full effect. A single cigar contains poison enough to extinguish two human lives if taken at once."

J. H. Kellogg, M. D.,
*The Home Book of Modern Medicine,* 508

Many people question the poisonous qualities of tobacco, since thousands use it regularly, and apparently suffer little harm. Dr. Kellogg responds.

"To this objection we answer—

1. One reason why so few persons are reputed to die of nicotine or tobacco poisoning, is the wonderful faculty the system possesses of accommodating itself to circumstances. Through this means the worst poisons may by degrees be tolerated, until enormous doses can be taken without immediately fatal effects. Corrosive sublimate, strychnia belladonna, and many other poisons, may be thus tolerated.

2. In our opinion, the majority of tobacco-users do die of tobacco

poisoning. Death as surely results, ultimately, from chronic as from acute poisoning, though the full effects are delayed, it may be, for years. A man who dies five or ten years sooner than he should, in consequence of tobacco-using, is killed by the poison just as truly as though he died instantly from an overdose." *Ibid* 511

Cigarette smoking is the chief avoidable cause of premature death in the United States . A report in JAMA of a 1985 survey shows a total of 314,574 deaths attributable to smoking, with a total 3,648,676 years of potential life lost. These estimates were based on an average life expectancy.

JAMA Jan 6, 1989--Vol 261, No 1, p23

Smokers generally recognize that there are long-term health risks from smoking, but the immediate effects are perceived to be positive—they think that smoking makes them more clearheaded, alert, and able to focus on their work. But this is only an illusion as it has the opposite effect.

See Lowell Ponte, How cigarettes cloud your brain, *Reader's Digest,* v146, (March '95) p127-130

According to an article in the *American Lung Association Bulletin,* more damage is done to heart and lungs by marijuana smoke than by tobacco smoke. Marijuana smoke impairs the ability of the lungs to dispose of bacteria and foreign material, and it severely inflames small airways in the lungs. Results of a study showed that a single marijuana cigarette produced as high a level of carbon monoxide in the smoker's blood as would 10 to 20 tobacco cigarettes smoked in one day.

*Science Digest,* January/February, 1981, 119

**Step 1:**

"The highly seasoned flesh meats and tea and coffee, which some mothers encourage their children to use, *prepare the way for them to crave stronger stimulants, as tobacco."*

Ellen G. White, *Healthful Living,* 109

**Step 2:**

"The *use of tobacco encourages the appetite for liquor*; and the use of tobacco and liquor invariably lessens nerve power."

*Ibid.*

Condiments and spices of all kinds, pepper, mustard, anything which is 'hot' when it is cold, vinegar, excess of salt and sugar, are irritating to the system and develop a thirst which water does not quench. The *free lunch counters* supplied by the vendors of intoxicating beverages include items with enough food value to appeal to the hungry, highly spiced, calculated to develop this thirst.

**Alcohol**, as a contributor to three of the leading ten causes of death in the United States,— cirrhosis of the liver, accidents, suicides and homicides,— should definitely be avoided. In addition, it is associated with cancer, high blood pressure, stroke and heart disorders when used regularly. Alcohol is quickly absorbed and carried to all parts of the body. It causes sludging of red blood cells, and as the cells clump together and pile up they may plug up tiny capillaries. Brain, liver, and other tissues are destroyed for lack of oxygen. Liver tissue may regenerate some if not too severely damaged, but brain tissue does not regenerate. Even the social drinker destroys some brain cells with every drink. Alcohol is a protein precipitant which makes it a good antiseptic and bacteria killer. If it is so effective in destroying bacteria it can also be devastating to delicate body cells. See J. DeWitt Fox, M.D., *Alcohol and Your Brain*, Life and Health, January 197l, pp 6,7

Much publicity has been given to studies supposedly showing that the consumption of wine by the French protects them from the risk of stroke. It was indicated in the discussion of the "French Paradox" that even though the French diet was 30% higher in fat than the American diet, the red wine they drank protected them from their rich diet. However, the whole story was not told. Actually, the French diet is quite comparable to the American diet in fat, but they use more fruits, vegetables, and grains,— foods that are high in fiber, and rich in vitamins and minerals. Even so, cancer of the esophagus and stomach cancer are very prevalent among the French. Both types of cancer are linked to alcohol consumption. Also, the French die of cirrhosis and chronic liver disease at almost two times the rate of Americans. Excessive alcohol consumption is a cause of cirrhosis of the liver.

See *Alcohol and Your Heart,* Adventist Review, September, 1994

"Alcohol actually interferes with the digestion, absorption, transport, storage and metabolism of many nutrients." Winston J. Craig. Ph.D., R.D.,

*Nutrition for the Nineties,* 243

As part of a summary of the effects of alcohol, tobacco and other drugs on the unborn in the book referenced below, the authors state, "In many cases, drug-associated deficits only become apparent as a child matures. Mental retardation, lowered intelligence, hyperactivity, shortened attention spans, learning and organizational disorders, impaired physical coordination, continuing growth delays in height, weight, and head size, and social-interpersonal adjustment problems are found with greater regularity among prenatally drug-exposed youngsters than in similar children whose mothers did not use drugs during pregnancy."

Paddy Shannon Cook, et al, *Alcohol, Tobacco, and Other Drugs May Harm the Unborn,,* U.S. Department of Health and Human Services, DHHS Publication No. (ADM)90-1711

## What is the remedy?

Did you notice that spices call for stronger stimulants, such as tobacco, and this in turn calls for liquor? It is encouraging to know that the process can be reversed. When a person is well nourished, and the taste buds have learned to appreciate the natural flavors in foods. the system is not so likely to call for stimulants.

Experiments have shown that animals on a devitalized, spicy, diet will choose alcoholic beverages in prefer-ence to water. When these same animals are given a nutritious diet free from spices, they will again choose water as their beverage, even when the alcoholic beverage is still available.

Of course, the accumulation of poisons must also be eliminated from the system. Fruits should be used freely as they are very cleansing; also, some of the herb teas help to cleanse the blood stream of impurities.

Habits that demand the use of harmful stimulants can be changed by coop-erating with the laws that govern our being. Practice the **eight true remedies,** including **trust.** Claim the promises of divine grace and power to overcome the desire to use harmful substances.

See Appendix A for many helpful promises.

# Summary and recommendations

Those who use stimulants, narcotics, or similar substances think these things bring them enjoyment, or that they help them cope with stress. But these substances lower the energy level, dull the senses, excite, then depress, the nervous system, and damage brain cells. Life's joys vanish away, leaving depression and many physical ills in its place.

Each of us must cope with stressful situations, depression, sorrow, and troubles of various kinds; but it is much more difficult to cope with life's problems when the senses are dulled and the energy level low. On the other hand, a person in good health with an unclouded mind is not only able to cope, but also experiences more fully life's pleasures and joys. Those who are living in a mental fog may not even recognize the beautiful experiences that do come their way! But there is hope. A few simple life-style changes can improve ones outlook on life.

The brain communicates with every part of the body with electric currents through the nervous system, or with chemicals (hormones) that reach their destination through the blood-stream. Anything that disturbs these electrical currents, or the synthesis of hormones by endocrine glands, and their reception where needed to regulate various physiological proces-ses, impairs the proper functioning of the body, and of the mind.

Two of the endocrine system glands, the pituitary and pineal glands, are located in the head. The pituitary, known as the master gland, is located near the base of the brain; the pineal is deep within the brain—indicating more than a casual relationship.
The Designer of the universe, and of your body cells, also designed everything necessary for life and health in a way to give us pleasure as we use these gifts. Foods are attractively "wrapped" and come in various colors, textures, aromas, and flavors; it is a pleasure to breath pure, fresh, air, and to satisfy the thirst with pure water; sunlight not only provides energy for plant growth to sustain our needs, but also brings color and beauty to our surroundings. These benefits promote life and health when used temperately.

But many people are not satisfied with these bounties. They try to compen-sate for the lack of nutrients in devitalized, processed foods by the use of stimulants; or try to cope with stress and life's challenges by the use of drugs that dull the senses. But stimulants depress the nervous system; some drugs mimic hormones, blocking hormone binding sites on cells so they cannot do their appointed tasks. The functioning of

the delicate machinery of body cells and of mental capabilities is hindered.

At creation Adam and Eve were given dominion over the earth,— and over self. This dominion was lost at the fall. Temperance, or the restoration of the dominion over self, is possible only through claiming the promises of grace and power to overcome health destroying practices, and to live in accordance with His plan for us.

Temperance undergirds all health principles. Choose to discard that which is harmful, and to use that which is good—temperately!

**"Choose Something Better"**

# *PROTEIN . . .* How safe are *non-plant* proteins?

> "Meat is not essential for health or strength, else the Lord made a mistake when he provided food for Adam and Eve before their fall. All the elements of nutrition are contained in the fruits, vegetables, and grains."
>
> Ellen G. White, *Healthful Living*, 96

Many people today are concerned about the use of flesh foods in the diet. Information in Lessons 1 and 3 showed that plant sources of protein are abundant and adequate,— that there is no need for flesh foods. But is there any harm in using flesh foods? Some answers to this question will be found on the following pages.

Those who **choose something better**, and discard the use of flesh foods, may notice a feeling of weakness for a short period of time, as well as some indigestion. Toxic wastes in flesh foods are stimulating. The lack of these stimulants causes the feeling of weakness. However, when stimulants are no longer consumed, and the accumulation of toxic wastes in the system has been eliminated, it will be found that plant-source foods are satisfying, giving a power of endur-ance and strength not supplied by a flesh diet. Symptoms of indigestion should disappear when the healthy type of colon bacteria are established.

Wholesome, yet inexpensive foods should be used to replace flesh foods; nourishing and satisfying foods, such as may be provided by a variety of grains, nuts, vegetables, and fruits.

It was not our Creator's plan that it should require the death of any creature to supply the needs of mankind. In this lesson we will learn of some of the dangers found in these "food" sources.

Our Creator, the Giver of all good gifts, might have provided for our daily food needs by supplying all needed nutrients wrapped in neat brown packages, all having the same texture and flavor. We see His great love for us in the variety of colors, textures, flavors and aromas in the foods gathered from gardens, orchards, and fields of waving grain.

A variety ample enough to meet varied tastes and requirements.

**Proper cooking is essential in the preparation of satisfying foods. so that meat will not be desired. However, this need not require a large amount of cooking. The diet should be adequate in both quality and quantity, and include an abundance of fresh, raw, fruits and vegetables.**

The recipes for this lesson were chosen to give suggestions for tasty alternates to highly spiced foods and for some substantial main dishes.

# Some reasons for not using flesh foods

## 1. Excess protein

The use of flesh in the diet usually results in consuming more protein than is needed. Excess protein places an extra workload on the liver and kidneys since the amino acid group composing the protein must be disposed of, with loss of the calcium used in the process.

## 2. Tissue wastes, drugs, hormones, and more:

All flesh foods contain the poisonous cell wastes that were on the way to the lungs, skin, and kidneys for elimination, as well as the drugs, hormones, and other substances introduced, into the system of the animal. Meat broths and extracts are heavily loaded with wastes similar to uric acid. They contain practically no food value. The hormones may be growth hormones fed to the animal, plus the adrenaline thrown into the animal's bloodstream just before it was slaughtered.

Some animals realize what is about to happen when they are brought to the slaughter, and they become furious and enraged. The strong hormones thrown into the animal's system under these conditions make the flesh poisonous, and when consumed may produce cramps, convulsions, apoplexy, and sudden death.

Even fish caught in fresh, clear, streams may be diseased from having fed earlier in sewage polluted water.

## 3. Flesh foods are acid-forming, and degenerate vital organs

"A meat diet acidifies the blood and diminishes the oxidation. It charges the humours of the system with a superabundance of nitrogenous wastes, uric acid in particular; it increases the urinary alkaloids; it congests the liver; it brings an obstinate constipation and causes dyspepsia, gastric difficulties and enteritis; it leads to psoriasis, eczema, etc.; it develops rheumatic, arthritic,, gouty and nervous tendencies. . . . It produces arterial hypertension and heart fatigue, and becomes one of the most active predisposing causes of arteriosclerosis (Buchard)"
Julius Gilbert White, *Abundant Health, 154; referencing Armand Gautier, Diet and Dietetics,* 417

## 4. Alters the character

White rats in laboratories are manageable and easy to tame as long as they are fed on bread and grain,

but they become snappy and given to biting from the time they are fed on flesh. "Liebeg relates that a bear kept at the museum at Giessen was gentle and quiet when it was fed exclusively on bread and vegetables, but a few days of animal diet caused it to become fierce and dangerous to its keeper. They [trainers] used to amuse themselves by thus periodically altering the animal's character."

*Ibid.*, 161

## 5. Bacteria for lunch, Please!

Microscopic counts have been made of bacteria found in various meats:

| | Bacteria per gram |
|---|---|
| Beefsteak | 1,500,000 |
| Corned beef | 31,000,000 |
| Hamburger steak | 75,000,000 |
| Pork liver | 95,000,000 |
| Limburger cheese | 18,000,000 |

Compare this with the number of bacteria found in manure:

| | |
|---|---|
| Oyster juice | 3,400,000 |
| Fresh droppings of calf | 15,000,000 |
| Fresh droppings of goat | 20,000,000 |
| Fresh droppings of horse | 25,000,000 |

If only two colon germs (E. coli) are found in a glass of water, the water is condemned as unsanitary. *Ibid.* 155, referencing J. H. Kellogg, M.D., *The New Dietetics,* 407, 408

Dr. Hoffman comments on bacteria in meat:

"When the animal is alive, the osmotic process in the colon keeps putre-factive bacteria from getting into the body of the animal. When the animal is dead the osmotic process is gone and putrefactive bacteria swarm through the walls of the colon and into the flesh. They tenderize the meat. . . . Properly aged meat is approximately four weeks old. At six weeks it is even more tender. The putrefactive bacteria tenderize the meat. Putrefactive bacteria are colon germs, colon germs are manure germs, and that is what tenderizes your meat."

Jay M. Hoffman, Ph.D. *The Missing Link*, 135

## 6. Source of disease

Flesh foods are a very prolific source of disease. Sir Arbuthnot Lane said:

"If you wish to produce cancer with a fair degree of certainty, supply a constipated subject with plenty of meat, and endeavor to deal with his constipation by means of irritating purgative drugs.

"What we should do then, if we would avoid cancer, is to eat whole-

wheat bread and raw fruits and vegetables, shunning all meat; first, that we may be better nourished; second, that we may more easily eliminate waste products, and thus adequately drain the house in which our cells live."

Julius Gilbert White, *Abundant Health,* 157, 156

See the Recommended Reading List in the Appendix for books with additional information on this topic.

# How about eggs, milk and cheese?

## Are they safe to use? Do we really need them?

> "As disease in animals increases, the use of milk and eggs will become more and more unsafe. An effort should be made to supply their place with other things that are healthful and inexpensive. The people everywhere should be taught how to cook without milk and eggs, so far as possible, and yet have their food wholesome and palatable."
>
> Ellen G. White, *Counsels on Diet and Foods,* 365

Salmonella contamination of eggs has been known for some time. Washing intact eggs in disinfectant before shipping may only aggravate the problem, as the eggshell is porous and may absorb chemicals in the disinfectant. Also, it appears that the Salmonella organisms are infecting the egg-making system of the hen, and may be in the egg before it is laid.

(See Winston J. Craig,, Ph.D., R.D., *Nutrition for the Nineties,* 272)

The widespread leukemia infection found in chickens and eggs places them in a questionable category for safe sources of nutrition. Additionally, many people suffer from severe allergic reactions to eggs.

See Agatha M. Thrash, M.D., and Calvin L. Thrash, Jr., M.D., *The Animal Connection,* 7, 8

Cattle are suffering more and more from various diseases. News releases speak to finding the AIDS virus in cattle. Leukemia and many other deadly diseases have been prevalent among cattle for some time. In California 40 to 80 percent of milk cows test positive for bovine leukosis.

Dr. Craig speaks to the dangers from drug residues frequently found in milk. These come from antibiotics used by farmers to treat diseases of cattle. Evidently the cows are not kept out of the milking line long enough, since tests frequently show drug residues in milk.

Also, dioxins used in the manufacture of paperboard milk cartons may leach out of the container into the milk. Dioxins can cause cancer, birth defects, liver degeneration, spleen damage, and are toxic to the immune system in animals.

See Winston J. Craig, Ph.D., R.D. *Nutrition for the Nineties,* 271-273, citing many references;

Food elements are nutritious to the system until they begin to

decompose. Nutrients in foods that have started to spoil, such as overripe fruits, wilted vegetables, rancid nuts, become toxic to the system and should not be used.

According to the definition of food in Lesson 1, cheese is not a food. It is not only high in fat, but the degradation of substances in milk as it is processed to cheese make it harmful to the body.

The proteins, carbohydrates, and fats, in milk are altered during the fermentation processes used in curing cheese, a process somewhat similar to composting leaves. Most of these products are toxic and irritating. Some of the amines in cheeses may interact with substances in the stomach to form cancer-producing agents. Tyramine compounds, amines abundant in ripe cheese as breakdown products of tyrosine, may cause hypertensive crisis and central nervous system irritability. Fats are hydrolyzed to irritating fatty acids. Some of the changes resulting from aging fats and cholesterol make them dangerous to health. It was found that some of the products formed in the degradation of cholesterol could cause death of muscle fibers in artery walls, which could be the initial injury in the development of atherosclerosis. Review Lesson 4 for other damages to cell functions from degraded fats.

See Agatha M. Thrash, M.D., and Calvin L. Thrash, Jr., M.D., *The Animal Connection, 109-111, and 73*

**Homo sapiens (humans) are the only mammalians that consume milk after being weaned—and the milk is from a different species!**

# For information

Researchers studied the possible relationship between the more highly saturated fats found in animal and dairy products, and the higher incidence of Multiple Sclerosis (MS) in farming communities. Investigations were made in Norway to determine why inland farming communities had a higher incidence of MS than was found in areas near the coastline. It was found that the diet of the inland farmers was much higher in animal and dairy products than the diet of those who lived near the coast. The diet of those near the coast included more fish. Studies have shown that there is a strong association between a diet that is high in animal and dairy products, and the incidence of MS.

R. L. Swank, 'Multiple Sclerosis: a correlation of its incidence with dietary fat', *Am. J. Med. Sci*, 1950, 220, pp 421-30; and M. Alter, et al, 'Multiple Sclerosis and Nutrition', *Arch. Neurol.*, 1974, 31, pp. 267-72

The long intestinal tracts of herbivores as compared with the short intestinal tracts of carnivores have been compared to remind us that the human anatomy places humans with herbivores. Here are some additional interesting comparisons that indicate that humans are, naturally, plant eaters:

| **Herbivores** (Eat plant foods) | **Carnivores** (Eat flesh) |
|---|---|
| Sweat when hot | Pant when hot |
| Sip water | Lap water |
| Must eat vitamin C | Manufacture their own vitamin C |

From: *We think we are one, we act as if we are one, but we are not one, (editorial) by William Clifford Roberts il, v66 American Journal of Cardiology, Oct 1, 1990, p 896(1)*

**Remember: All the elements needed for good nutrition are found in fruits (including nuts), grains, and vegetables. (Review Lessons 1 and 3)**

# *AIR . . . The Free Blessing of Heaven*

Watchword

## Air, an "Invigorating Influence"

Fresh "air is the free blessing of heaven, calculated to electrify the whole system." Ellen G. White, *Healthful Living,* 71

"Air, air, the precious boon of heaven, which all may have, will bless you with its *invigorating influence* if you will not refuse it entrance. Welcome it, cultivate a love for it, and it will prove a *precious soother of the nerves*. . . . The influence of pure, fresh air is

to cause the blood to circulate healthfully through the system.
It refreshes the body, and
tends to render it strong and healthy, while at the same time
its influence is decidedly felt upon the mind,
imparting a degree of composure and serenity.
It excites the appetite, and
renders the digestion of food more perfect,

> and induces sound, sweet sleep." *Ibid. 72*

*Let every thing that hath breath praise the Lord. Praise ye the Lord.*
*Psalm 150:6*

Every cell in the body utilizes oxygen. It is needed to "burn" foods to produce heat and energy. These cells are dependent on the oxygen supply available in the blood stream and tissue fluids. Some of the reasons red blood cells may not be able to supply enough oxygen to body cells include:

Poor posture and breathing habits.
Poorly ventilated rooms with pollutants in the air.
Clumping of red blood cells caused by free fats in the diet.
Wastes and toxins in the blood stream.

**"Air is life's first necessity. One may live for many days without food, and for a few days without water, but for only a few moments without air."**
**Julius Gilbert White,*Abundant Health*, 324**

# What is air?

Air is a mixture of many gases, but is composed mostly of nitrogen and oxygen,— about four-fifths nitrogen and one-fifth oxygen. Other gases normally in pure air are found only in minute quantities, except for carbon dioxide and water vapor.

All living things are dependent on oxygen. Plants not only use carbon dioxide from the air as food, but they also utilize oxygen,— as do animals and humans. Air is admirably adapted to the needs of human beings, as well as to the needs of animals and plants.

# Air may carry pollutants hazardous to health!

*Carbon dioxide* is not harmful to animal life in the quantity naturally found in the atmosphere, but if its proportion is increased tenfold or more it becomes decidedly harmful, especially if the increase is from the respiration of animals or human beings—though the harm may come more from *organic poisons* associated with it. High concentrations may be reached in enclosed areas as each exhalation makes about three cubic feet of air unfit for breathing again!

*Chemicals* that are airborne may damage the delicate tissues in the lungs, and perhaps poison the body. Manufacturing plants, agricultural applications, and some trade or professional practices, may be sources of many air-borne chemicals.

*Dust* may include not only dry earth and pollen, but also tiny bits of metal, worn tires, black soot, etc. Small quantities of dust may be mostly removed in the air passages before reaching the delicate *alveoli* in the lungs; however, the body's filtering mechanism fails if the quantity of dust is great. Inhalation of dust is one of the causes of lung diseases.

*Disease germs and spores* are given off in great numbers wherever there is decay of animal or vegetable matter. This decay gives off a musty odor, and the germs and spores may cause serious diseases. Sources may be moldy bread or other spoiled foods, molds on walls or floors in humid areas, and decaying leaves or other organic matter in the area.

*Hydrogen sulfide and Ammonia* are often present in the air. These gases are given off by decomposition of animal wastes from stables, barnyards, chicken coops, vaults. etc. Hydrogen sulfide smells like rotten eggs.

*Organic Poisons* are body wastes, other than *carbon dioxide* (an odorless gas), eliminated from the body through the lungs and skin. They are some of the most harmful poisons in enclosed air, and may even produce death. A person who has been in an unventilated room for some time may not notice it, but a person coming in from the pure outside air will notice the "fusty" odor. (Webster says *fusty* = moldy, musty, ill-smelling, rank.)

*Tobacco smoke* not only carries toxins that are absorbed by the blood, but it also blackens the delicate lining of the lungs, coating the *alveoli* and hindering the transfer of oxygen and carbon dioxide.

> "The harmful effects of living in close, ill-ventilated rooms are these:
>
> The system becomes weak and unhealthy;
>
> the circulation is depressed;
>
> the blood moves sluggishly through the system, because it is not purified and vitalized by the pure, invigorating air of heaven;
>
> the mind becomes depressed and gloomy,
>
> while the whole system is enervated,
>
> and fevers and other acute diseases are liable to be generated."
>
> Ellen G. White, *Healthful Living,* 72

## Recommendations and cautions

Open doors and windows in the home for at least a few minutes every day, even in the wintertime. Turn the thermostat low to conserve fuel, and let the fresh air flow in. The air will warm again in a few minutes, or cool again if it a hot summer day, and the fresh air will truly be a boon to the household.

Another good practice is to fold back the covers on the bed first thing in the morning, and let the bedding and bed air out for a few minutes before making it.

Garden enthusiasts should be careful to keep humus piles well away from the home. Decaying refuse, as well as dampness and mold, harbor death-producing germs in abundance. Uncleanness in any form tends to disease. These principles apply within the home also. Nothing should be tolerated within the home that is decaying or unclean.

Too frequent use of nose drops and nasal sprays may damage the delicate membranes, causing them to become thickened and inflamed. The use of these products is not recommended.

We should do all we can to assure a supply of good clean air as "food" for the lungs. Some situations may be beyond our control, other than moving to a new location, and/or finding different employment. However, there is much that can be done in and about our homes to improve the quality of the air we breathe by practicing simple rules of cleanliness and hygiene.

**An abundance of pure, fresh, air is needed to supply the needs of each cell in the body, and to dilute and wash away the poisons poured forth from lungs and skin.**

# *Vitamins, Minerals, and Phytochemicals*

Life is sustained by food, water, air, and sunshine. Food that has been de**vital**ized cannot provide good nourishment. (**Vital** elements have been removed from de**vital**ized foods.) Only foods that have life should be used, foods that contain the **vital** nutrients that make the difference between living and dead matter. Scientists have called some of these nutrients **vita**mins.

**"Vita**mins promote the rate and ease with which essential chemical reactions proceed in the body, in much the same way that catalysts promote reactions in chemistry. True catalysts are not themselves used up in the reaction, whereas often the vitamins are used up, attached, or destroyed in the process of promoting the biologic reaction"

Agatha Moody Thrash, M.D., and
Calvin L. Thrash, Jr., M.D.
*Nutrition for Vegetarians*, 61

**What do vitamins do for us?**

"Regulate metabolism,

"Assist in converting fat and carbohydrates into energy,

"Assist in forming bones and tissue.

"Prevent deficiency diseases."

*Ibid., 61, 62*

## Vitamins are the vital sparks setting food elements to work.

Vitamins may be largely lost during transportation and storage of foods. Foods used should be as fresh as possible to maximize on the vitamin content. Some vitamins are retained in cooking, canning, and freezing.

Many nutrients, including vitamins, are removed or lost when foods are refined. Some nutrients may be added back to "enriched" foods, but only a fraction of what was removed is added back,— and these are probably synthetic. Twenty nutrients may have been removed from "enriched" refined products, with perhaps only 5 being replaced.

This process may be likened to someone returning $25.00 to you after having stolen $100.00, and telling you that you have been enriched.

## What are the best vitamin sources?

Whole foods as grown, fresh from garden and orchard, are the best sources of vitamins. Whole grains are excellent sources of the B vitamins, as are also green, leafy vegetables. Provitamin A is found in highly-colored vegetables, such as carrots, winter squash, and deep-green vegetables, as well as in many fruits and melons. Just as carbohydrates, proteins, and fats are found in all whole foods, so other substances, including vitamins, are found in these foods. A varied diet of whole natural foods in adequate amounts should supply most of the needed vitamins.

No doubt the average American would profit from the use of more protective foods, such as fresh fruits and vegetables. The average annual consumption of these foods in **1990** was:

| | Pounds |
|---|---|
| Fresh fruits | 92 |
| Selected melons | 25 |
| Fresh vegetables | 111 |
| Fresh Potatoes | 45 |
| | **273** |

The total consumption of potatoes was 127 pounds, but most of them were used as frozen potato products, or as chips, shoestring, or dehydrated potatoes, so could not be considered protective foods very well.

The above amounts are given as farm weight of produce, so the amounts consumed would be much less when trimmings and wastes are considered. The average annual consumption of dairy products was **570** pounds (see Lesson 5), and a fair amount of that was in the form of highly concentrated cheese products. **Note that the average American consumed more than twice as many pounds of dairy products than of the protective fresh fruits and vegetables!** It is no wonder that degenerative diseases are so prevalent, and the Surgeon General is recommending the use of more fruits and vegetables! Of course, the use of fresh fruits and vegetables from home gardens and orchards might improve this picture somewhat, but it is apparent that these foods need to be appreciated, and eaten, more than they currently have been!

**The less time that passes between the time foods are gathered from garden, field, and orchard, and when served at the table, the more nourishing the food will be.**

# Do I need a B-12 supplement?

Studies show that many B-12 supplements may do more harm than good. "Multivitamin preparations contain breakdown products of B-12 that exert an anti-B-12 effect, and may cause the very deficiency the preparation is expected to prevent."
Agatha M. Thrash, M.D., and Calvin L. Thrash, Jr., M.D., *Nutrition for Vegetarians*, 69, citing *Harmful B-12 breakdown Products in Multivitamins?* Medical World News, 09/28/81,12, 13

Recent studies indicate that B-12 from algae (nori and spirulina) may not be bio-available, (are not accessible for metabolic needs of the body). Pieter C. Dagnelie, et al, *Vitamin B-12 from Algae Appear not to be Bioavailable,* American Journal of Clinical Nutrition, March '91, p695(3)

Results of recent studies indicate that total vegetarians do need a B-12 supplement,— not as part of a multivitamin preparation, however. The following product is recommended:

Sublingual
B-12 DOTS
By Twinlab

One such tablet as a B-12 DOT per week should be adequate. If the B-12 pill is hard, crush or chew it to get adequate absorption. See Milton G. Crane, M.D., et al, *Vitamin B-12 Studies in Total Vegetarians,* Weimar Institute and Loma Linda University.

**Mineral salts** are as important to life as are proteins, fats, starches, and sugars. Minerals "perform many functions in the body," comments Dr. Craig, "including a structural role as well as regulation of important body processes. For example,

they participate in blood clotting,
transmission of messages from nerves to muscles,
transport of oxygen by the hemoglobin in the red blood cells,
and enzyme regulation.

Furthermore, zinc is part of the structure of insulin,
cobalt is at the center of the vitamin B-12 molecule, and
the thyroid hormone thyroxine contains four atoms of iodine.

Since copper is essential for iron uptake and transport in the blood, anemia can result from copper deficiency.

Silicon, a newer [little known] trace element, plays a role in the formation of bone and connective tissue; [also, arterial wall strength].

In addition flouride is required for the maintenance of healthy bone and tooth structure,

while manganese is essential for normal brain function, bone growth, collagen formation and for energy metabolism."

Winston J. Craig, *Nutrition for the Nineties,* 153

Minerals are needed to maintain the acid-base balance in the body. They may be shifted from bone or muscle into plasma, or out of plasma into bone or muscle in order to maintain this balance. Also, minerals help maintain osmotic pressure, facilitate transport of other nutrients and substances across cell membranes, assist in blood clotting, and make up a significant portion of bones.

(See Agatha Moody Thrash, M.D., and Calvin L. Thrash, Jr., M.D., *Nutrition for Vegetarians,* 71)

Digestive juices include various groups and combinations of *mineral salts.* If the supply of minerals is not adequate, nerves, tissues, teeth and bones will be robbed in an effort to supply the mineral needs for digestion,— the body's No. 1 priority for minerals. If the inadequacy continues, digestion will be impaired.

A diet of devitalized foods lacking their natural mineral content will not provide the minerals needed for good digestion, nor for the many other needs. A continued deficiency will tip the chemical balance so essential for good health. The body cannot shift minerals from *empty* "store-houses" of bone and muscle, into plasma.

Body wastes tend to be acidic; therefore, the diet should include an abundance of alkaline-ash foods, such as fruits and vegetables, to offset the acid-ash foods and body wastes.

## Do we get enough minerals from natural, whole foods?

"Many researchers have expressed concern about the availability of trace minerals from a high-fiber vegetarian diet containing unrefined cereals and legumes. They contend that dietary fiber and other plant components reduce the bioavailability of elements like zinc. It is true that 38% of the zinc in white bread is absorbed while only 17% is absorbed from wholemeal bread. However, the total amount of zinc absorbed from wholemeal bread is almost 50% more than that absorbed from white bread. Why? Because wholemeal bread contains more than three times the level of zinc found in the white bread."

Winston J. Craig, Ph.D., R.D., *Nutrition for the Nineties, 151-152; referencing* B. Sandstrom, B. Arvidson, A. Cederblad and E. Bjorn-Rasmussen. *Zinc Absorption from Composite Meals. I. The Significance of Wheat Extraction Rate, Zinc, Calcium and Protein Content in Meals Based on Bread.* Am J Clin Nutr 33: 739-745, 1980

"When calories, proteins, and vitamins are provided in sufficient quantity by a varied diet from the basic three food groups, the mineral requirements are usually met automatically. It is not helpful to any of the body systems to have a mineral surplus on hand. In fact, body functions are hampered or even destroyed by an excess."

Agatha Moody Thrash, M.D., and Calvin L. Thrash, Jr., M.D., *Nutrition for Vegetarians*, 72

Note the words "usually met". This greatly depends on the mineral content of soils where foods are grown.

Also, although green, leafy vegetables are excellent sources of minerals. calcium in high-oxalate greens is not available to the body even though it is absorbed. Spinach, chard, beet tops, and rhubarb are high in oxalic acid so are not the best foods. Generous servings of low-oxalate greens, such as kale, collards, broccoli, cabbage, and endive, should be used daily. Many edible wild plants may be used to supplement garden greens. Learn to identify plants in your area so that poisonous plants will not be eaten.

## Some reasons, and remedies, for mineral deficiencies

Use of highly refined foods.

Excessive urinary losses, such as loss of calcium used in processing excess protein in the diet.

Increased needs during rapid growth, or other physical crises.

Decreased intestinal absorption because of chemical interactions, such as may be caused by an excessive use of mineral supplements, imbalancing the mineral ratios in the system.

Variations in the mineral content of soils. For example, foods grown on soils low in iodine will be deficient in iodine.

It is recommended that foods be obtained from far and near, so as to include some grown on soils rich in minerals not found in local soils. Also, iodized salt should be used to help supply needed iodine, or kelp tablets with 150 to 300 mg of iodine. If mineral supplements are used, they should be used judiciously.

**Phytochemicals** are taking the spotlight in current publications on nutrition and health information. ("phyto" comes from the Greek word for plant). Plants are veritable chemical factories, manufacturing hundreds, perhaps thousands, of phytochemicals, which are substances other than vitamins, minerals, and complex carbohydrates in plant foods.

Nutrients in whole plant foods complement each other in the hundreds of chemical reactions that body cells must process for optimum health. Refined, processed foods no longer have all their life-giving nutrients (vitamins, minerals, phytochemicals, etc) to sustain a healthy activity in body cells. Chemical reactions that should take place may be slowed, hindered, altered, or not completed. The liver may not be able to cope with all of the unusable altered nutrients and toxic substances, so they accumulate in the body, causing diseased conditions.

Research shows that many of the phytochemicals have anticarcinogenic properties, as well as providing protection against other degenerative diseases. They perform important tasks in maintaining healthy cell activity,— a healthy body.

Note the sources of the following anticarcinogenic phytochemicals:

**Naturally Occurring Anticarcinogenic Compounds in Foods**

| **Inhibitor** | **Typical Dietary Source** |
|---|---|
| Aromatic isothiocyanates | Cauliflower, cabbage |
| Ascorbic acid (vitamin C) | Citrus fruits, vegetables |
| Alpha and Beta-carotenes | Carrots, leafy vegetables, Sweet potato, mango, pumpkin |
| Coumarins and lactones | Citrus fruits, vegetables |
| Fibers | Cereals, fruits, vegetables |
| Flavonoids | Fruits, vegetables, grains |
| Indoles | Brussels sprouts, cabbage, Cauliflower |
| Lycopene | Tomatoes |
| Plant phenolics | Soybeans, oats, apples, potatoes |
| Protease inhibitors | Soybeans, seeds, nuts, legumes |
| Selenium compounds | Grains, Brazil nuts |
| Alpha-Tocopherol | Nuts, seeds, oils, asparagus |

Adapted by Winston J. Craig,. *Nutrition for the Nineties,* 101, from
E. S. Fiala, B. S. Reddy and J. H. Weisburger. Naturally occurring Anticarcinogenic Substances in Foodstuffs. Ann Rev Nutr 5:295-321, 1985

In addition to the above listed compounds, *whole* soybeans contain isoflavones, inositol phosphates, and saponins, that help prevent cancer. But these phytochemicals may be almost entirely lacking in soy protein isolate products. This helps us understand the importance of using whole foods as grown, rather than the isolates derived from them!

**Genestein**, one of the isoflavones in whole soybeans, is a recently recognized phytochemical, that works against cancer and atherosclerosis.
See Milton G. Crane, M.D., What's New About Soya, *Weimar Institute TIDINGS,* MAY/JUNE, '94

**Fenugreek** seeds supply a soluble fiber that lowers blood glucose levels and elevated serum cholesterol. This aromatic legume may be ground, or sprouted, and included in the diet.
See Aromatic alternative to oat bran, *Science News*, August 18, 1990, 109

Some phytochemicals are known as **Enzymes** because they facilitate but are not destroyed in a chemical reaction**.** They are essential for good health, but are even more easily lost or destroyed than vitamins. They are destroyed by temperatures of 130° F, or greater. They begin to deteriorate soon after food is harvested.

Body cells manufacture hundreds of enzymes to act as catalysts in the chemical reactions constantly taking place. Although most enzymes for digestion and other reactions are produced by the cells *de novo* (not from plant enzymes), we also need an abundance of enzymes as found in fresh, raw foods, which should make up a good share of our daily food intake.

Although enzymes for digestion are produced by body cells, plant enzymes may enhance the digestive process. Studies show that raw foods such as vegetables and fruits digest more readily than the same food does when cooked.

Sprouted seeds and grains are veritable storehouses of enzymes activated to launch the seed into the plant. Sprouted wheat or other grain, and sprouted radish, fenugreek clover, and alfalfa seeds, make excellent additions to sandwiches and salads; or they may be used as a side dish at the table. Sprouts add sparkle to the winter menu.

Fruits and vegetables are best if used right out of the orchard or garden. If commercially grown fruits and vegetables must be used, shop for fresh, unwilted produce.

Special enzymes in foods are released when foods are cracked, cut, broken, or bruised, or stored at warm temperatures. These special enzymes are designed to decompose the food for recycling, so are harmful to the body. Also, enzymes in overripe fruit and wilted vegetables are no longer nourishing, but harmful.

Over-ripe fruit, or fruit with spoilage spots, should be discarded

Wilted vegetables should not be used.

**"Without enzymes, seeds could not sprout. . . leaves could not change their color in autumn. . . Without enzymes, your food could not be digested to release valuable vitamins, minerals, amino acids needed to keep you alive and healthy. In addition, we can see the action of enzymes when they cause the ripening of green tomatoes into luscious red tomatoes. . . Without the presence and action of enzymes, these changes could not be made."**
**Jay M. Hoffman, Ph.D., *The Missing Link,*** *158, 159;* quoting Carlson Wade, *Helping Your Health with Enzymes,* 23

# Food preparation and cooking guidelines

**To help assure utilization of all the nutrients in foods:**

Keep chopping, shredding, and blending of foods to a minimum, as the vitamin and enzyme content is reduced when food particles are exposed to oxygen.

Never peel, scrape, or pare, when a scrubbing brush will do.

Never use soda in cooking vegetables to keep them green. It destroys vitamins and enzymes.

Use cooking liquids elsewhere to obtain the minerals.

Since heat destroys enzymes and some vitamins, it is best to:

> Cook in as **short a time** as possible, in as **little liquid** as possible.

This applies to corn-on-the-cob and pasta as well as other foods. Steamed corn has a much richer flavor than boiled corn covered with water while cooking. Whole grain pasta should be cooked in just enough liquid to cook it without burning, and the remaining liquid used as part of the sauce.

# But not all foods can be eaten raw!

Foods, such as grains and legumes, *need* to be well cooked, or sprouted, to make the nutrients available to the body. Potatoes also should be cooked.

Other foods, such as fruits and most vegetables, may be used cooked or raw. To optimize on available vitamins and enzymes, use a high percentage of raw foods.

**Fresh, raw, foods are more satisfying than cooked foods. The "satisfaction point" is reached with a lesser quantity of raw foods, than of the same food that has been cooked or refined. Such as,**

You might be satisfied with a medium-sized apple during a meal, yet feel like eating two or three apples in the form of applesauce before being satisfied.

You might be satisfied with one slice of whole-grain bread during a meal, but need to eat 2 or 3 slices of white, "balloon" bread before being satisfied.

**Remember, unrefined whole foods sustain a more even energy level for a longer period of time than do refined, processed foods.**

# B R E A D M A K I N G

> "Bread is the real staff of life, and therefore every cook should excel in making it."
> Ellen G. White, *Counsels on Diet and Foods,* 315

## Principles for making bread the real "staff of life"

Whole grains make the most nutritious breads. Two or three different grains may be used together for added nutrition and variety. Small amounts of unbleached white flour or gluten flour, may be used for good texture, especially while learning to bake bread. However, with a little practice excellent breads can be made using whole grains only.

No sourness should be permitted in yeast breads. The loaves should be small, and baked until thoroughly done. The yeast should be completely destroyed in the baking process. If it has not been destroyed, the bread will develop a stickiness and yeasty smell,

Hot or new yeast-leavened breads are difficult to digest and should not be used. Yeast breads should be thoroughly cooled before using them. Bread is better when two or three days old. Gases from the growth of yeast must be allowed to escape, and the texture firms when the bread is well cooled. There should be no softness nor stickiness in the finished product. It should be light, sweet, and dry. Unleavened breads may be used fresh from the oven.

Zwieback, (twice-baked bread), is an excellent food. It digests easily. Toast slices of bread all the way through in a warm oven to a very light brown.

## Tip for handling yeast dough

Dip fingers in water, and spread water over palms of hands. This will keep dough from sticking to hands while forming loaves and buns. Water works better for this than oil.

## Bread making is an art—well worth the effort to master!

Do try some of the bread recipes with this lesson, both the unleavened and yeast breads. The flavor of unleavened breads made without soda or baking powder is superior to those made with these products, and there are no harmful residues in the finished products. Whole grain flours make delicious breads, rolls, muffins, and crackers.

# *LUNGS AND RESPIRATION*

**"The health of the entire system depends upon the healthy action of the respiratory organs."** Ellen G. White, *Healthful Living, 171*

"Morning exercise, walking in the free, invigorating air of heaven, or cultivating flowers, small fruits, and vegetables, is necessary to a healthful circulation of the blood. It is the surest safeguard against

colds, coughs,
congestion of the brain,
inflammation of the liver, the kidneys, **and the lungs,**
and a hundred other diseases. *Ibid.* 176, 177

"No part of the body is more susceptible of development by judicious and appropriate exercise than the lungs. The amount of air which passes to and fro in the respiratory process is ordinarily but about two-thirds of a pint; and in cases of disease is much less, often being reduced to less than a third of this amount. By the daily exercise of the lungs in such a manner as to develop the chest, the breathing capacity may be very greatly increased. We have frequently seen the chest expanded three or four inches by a course of appropriate training. **One of the best exercises for this purpose is forced respiration, which consists in breathing as deeply as possible, making strong efforts to fill the lungs, and emptying them as completely as possible. This exercise should be taken slowly from five to thirty minutes at a time, and should be repeated several times a day."**

J. H. Kellogg, M.D.,
*The Home Book of Modern Medicine,* 720

## What a challenge!

**The capacity of the average set of lungs is about 6 pints of air. If in each inspiration only a little less than a pint of air is exchanged, a large amount of stale air remains in the lungs. Reason enough to start a lung exercising program to expand the lungs (and chest), and improve the oxygen supply to every body cell!**

# The equipment

The **lungs**, together with the heart, occupy the chest cavity. Air passes thru the trachea, which divides in the chest into two branches, the bronchial tubes, one going to each lung. These tubes continue to subdivide, ending in myriads of tiny air sacs known as *alveoli*, which are covered with tiny capillaries.

Air is not forced into the lungs, it simply rushes in when the diaphragm is depressed and the rib cage is expanded. It enters when room is made for it. Air is expelled when the diaphragm relaxes and the elastic lungs recoil to their normal, undistended position. Many people use only the lower, or upper, portions of the lungs in breathing. Good breathing habits keep the diaphragm involved, using the whole lungs with each inspiration. This is known as abdominal breathing.

The whole respiratory tract is lined with a special mucous membrane with minute, delicate, hairlike projections called cilia. These are in constant motion, always waving in the same direction,— towards the mouth. Their work is to protect the lungs from dust that slips past the large hairs near the front of the nose, by sweeping it up the air passages to the mouth. But even the cilia will not be able to remove all the dust from the air we breath if we feed our lungs “dirty” air. We should be as careful to have clean air to breath, as we are to have clean food to eat.

The mucous membrane keeps the air moist that is to reach the delicate *alveoli;* also, it warms cold air, and cools hot air, on its way to the lungs. Extremes in air temperature, especially if dry, could do much harm.

## The very important, but very delicate *alveoli.*

Membranes surrounding these tiny air sacs, and the surrounding capillaries, must be extremely thin to permit a ready exchange of oxygen and carbon dioxide. They are! These membranes are about as thick as a soap bubble just before it bursts.

Though tiny and fragile, the alveoli are numerous. It has been estimated that a set of lungs has about 300 million of them. If they were spread out flat they would cover an area nearly 40 times the surface area of the skin, or about 70 square meters! A wise provision to assure an ample supply of oxygen for various activities.

As red blood cells slip through lung capillaries they give up their load of carbon dioxide to be exhaled, and take on a fresh load of oxygen to be released through body capillaries for use in body cells. Blood loaded with carbon dioxide is a bluish purple; as it gives up its load of wastes and takes on fresh supplies of oxygen it turns a bright cherry-red color.

**Check the natural color of your fingernails. Are they a bright pink? If not, go for a brisk walk, and notice the change in color.**

# A bit of information and summary

"When the oxygen is cut off from normal cells, they are damaged, to the extent that they are no longer able to burn foodstuffs down to carbon dioxide and water, because oxygen is needed for this reaction. The cells then have to depend upon the energy obtained from metabolizing sugar to lactic acid, which does not supply adequate energy to maintain normal structure and function. As a result, the cell turns cancerous."

Zane R. Kime, M.D., M.S., *Sunlight,* 96

**Did you notice this last reference? Normal, healthy, cells may turn into cancer cells when the oxygen supply is reduced. Cancer cells grow in a system that has toxic wastes and has a poor supply of oxygen!**

(Review the metabolism of cells under *Fats* in Lesson 4.)

## Hindrances to supplying oxygen to cells

Poor breathing habits and/or posture.

Poorly ventilated room(s), and/or air pollution.

Clumping of blood cells caused by free fats/oils in diet.

High concentration of sugar or polymers in the blood, inhibiting red blood cells from carrying normal loads of oxygen. (Review Lesson 4, Heart and Circulation.)

Atherosclerotic arteries. (Review Lesson 4 on Fats)

Other toxins or wastes in the bloodstream.

## Essentials for a good supply of oxygen to each cell in the body

A good supply of clean, fresh, air.

A clean, free-flowing bloodstream, flowing through clean arteries.

Adequate exercise to encourage deep breathing, and to move the oxygen out to body cells, even "remote" ones.

**Remember, "Perfect health depends upon perfect circulation."**

Ellen G White, *Healthful Living,* 178

**Are your lungs able to supply your need for oxygen,— unhampered?**

**Stand tall, and sit tall.**

**Throw your shoulders back, and**

## Make room for your lungs to work!

# *R E S T . . .*

## *A Restorer*

Watchword

### Sleep,-- a Restorer of Vigor and Strength

Nature will *restore their vigor and strength* in their sleeping hours, if her laws are not violated. Ellen G. White, *Healthful Living* 46

"Misuse of the body shortens that period of time which God designs shall be used in his service.

By allowing ourselves to form wrong habits,
by keeping late hours,
by gratifying appetite at the expense of health,
we lay the foundation for feebleness.

By neglecting to take physical exercise,
by overworking mind or body,
we unbalance the nervous system.

Those who thus shorten their lives by disregarding nature's laws, are guilty of robbery before God." *Ibid.* 47

### What is rest? Webster says:

"The refreshing quiet or repose of sleep;

"Refreshing ease or inactivity after exertion or labor;

"Mental or spiritual calm; tranquility

"Relief or freedom, especially from trouble, anxiety, etc.;

"A period or interval of inactivity, repose, solitude, or tranquility;

"Cessation or absence of motion."

*Come unto me, all ye that labour and are heavy laden, and I will give you rest. Take my yoke upon you, and learn of me; for I am meek and lowly in heart: and ye shall find rest unto your souls.* *Matthew 11:28,29*

### *Rest,— or stress a destroyer?*

**“The burden of sin, with its unrest and unsatisfied desires, lies at the very foundation of a large share of the maladies the sinner suffers.”** ***Ibid. 51***

# The search for rest

Every human being is searching for true rest. Many spend large sums of money to travel to distant lands, thinking that this will bring rest; some look for new employment; some try drowning their troubles in drink, or in excitement; and some may even leave a devoted spouse in search of another mate, thinking this will bring happiness and rest. But they may still have that unsatisfied longing for rest. True rest begins with taking on the yoke of the One who invites us to "Come unto Me, . . . and I will give you rest." And, in taking on His yoke (total surrender), we find that freedom and rest that we long for!

The greatest Teacher the world has ever known also said, "Come ye yourselves apart into a desert place, and rest a while." Mark 6:31 He did not spend this time with his disciples in self-indulgent rest. Removed from the multitudes constantly pressing about them, they talked about their work, and of ways of bringing greater efficiency to it.

He taught the need for "quiet time," for getting away from the pressures of everyday life. We need some rest on a daily basis, some special time on a weekly basis, as well as other blocks of time,— time spent away from the general routines of life.

# A day of rest

Our loving Creator established the seventh day of the week as a day of rest to meet our basic need for recurring periods of rest. Ten-day cycles have been tried; but they failed, as they did not synchronize with the needs of humanity. The weekly day of rest is a physiological necessity for maintaining physical and mental efficiency, as well as being a religious privilege and duty. A day for spiritual refreshing, and for sharing these blessings with others. To fully appreciate this day of rest, one must enjoy rest of spirit. See Hebrews 3:4.

*Be still, and know that I am God.*
*Psalm 46:10*

# Restful homes

Those who are at peace with God and themselves will have restful homes. Such a home will be the most attractive place in the world for its members, and will have an influence for good in the community. Homes that will be "a little bit of heaven to go to heaven in."

"If we will open our hearts and homes to the divine principles of life, we shall become channels for currents of life-giving power. From our homes will flow streams of healing, bringing life, and beauty, and fruitfulness where now are barrenness and dearth." Ellen G. White, *Ministry of Healing,* 355

# Enemies of rest

Many people are ever searching for something, they know not what, to satisfy ungratified desires. They may try hilarity, or frivolous, exciting indulgences, only to be left in a state of despondency and discontentment as these activities do not satisfy nor bring true rest, The emotional effect is similar to the physical effect of stimulants.

True rest cannot be experienced when a person is anxious, distrustful, discontented, or experiencing grief, guilt, or remorse. These emotions have a tendency to break down the life forces.

Everyone experiences sorrows, trials, and difficulties, but many "borrow" trouble unnecessarily by anticipating it, doubling life's burdens.

See Ellen G. White, *Ministry of Healing,* 241-248

Negative emotions affect body chemistry, opening the door to disease.

## But how are we to control negative emotions?

**Firs**t, remember that the Lord said: *Without Me, ye can do nothing* *John 15:5*

Claim the promise: *I can do all things through Christ, which strengtheneth me.*

*Philippians 4:13*

Health is promoted by courage, hope, faith, sympathy, and love,— and life is prolonged. So, with His help, keep the mind fixed on cheerful things. There is but one Source for abiding peace and true rest of spirit,— the One who said, *"Come unto Me, . . . and I will give you rest."*

*Ibid*

**Second**, as we learn to cooperate with Him, we will "Choose something better," and engage only in activities that will not hinder us in controlling the emotions, such as:

Types of activities engaged in. Amusements, and other exciting activities are not restful.

Choice of reading or viewing materials.

Choice of foods and lifestyle. The diet, as well as other health habits have much to do with our ability to maintain control. Practicing the **eight true remedies** will aid in this work.

**True recreation is re-creation.**
**Exercising the nerves of motion gives the nerves of emotion a rest.**

A healthy mind is very dependent on good nutrition, an adequate oxygen supply, and a clean bloodstream. On the other hand, a restful, tranquil, mind has much to do with good nutrition and health of the body. The organs of digestion and assimilation of food cannot function properly when

under the influence of a disturbed mind.

# Stress, or challenge?

Stressful situations are experienced by everyone, some more than others. But some people may thrive under pressures that would break another person. What makes the difference? Individuals in good health with a positive outlook on life can meet life's challenges successfully, whereas a person in poor health and/or depressed in spirit will not be able to endure. Physical health, mental attitude, and lifestyle habits, have much to do with whether difficult situations are *stressful,* or *challenges*.

Body and mind were created for activity, but it is possible to over-tax them. However, stress usually stems from an attitude problem, such as boredom, anxiety, frustration, "root of bitterness," depression, or a sense of failure,— seldom from overwork.

Some aids to dealing with pressures are: plan and organize your work and time to accomplish necessary tasks; use small bits of time wisely; don't try to do more than you can do.

Almost any job or task can become routine and boring, but a little initiative and imagination can keep the task interesting. Try to find ways to do it better, to improve your skills while accomplishing your work.

When under pressure take an exercise break, and/or take two or three minutes to relax with eyes shut.

We can have inner peace regardless of circumstances. If we accept the invitation to "Come unto Me," and we take His yoke upon us, we will be able to bear life's trials. He gives us grace and strength sufficient for each day's needs, and will bear our burdens if we cast them upon Him. He has promised not to permit us to be "*tempted* [tested] *above that ye are able*."
I Corinthians 10:13

*Cast thy burden upon the Lord, and he shall sustain thee.* Psalm 55:22

*I will instruct thee and teach thee in the way which thou shalt go: I will guide thee with mine eye.* Psalm 32: 8

# Rest may be found in

*Study and reading good books* can be restful to the muscle worker.

*Useful Activities,* as gardening or yard work, relax the nerves and are restful for the sedentary mind-worker.

*A change from the daily routine.* Vacations should be restful, and will be, if unhurried, and taken in restful surroundings with an abundance of fresh air and sunshine, or even rain!

*Walking.* is an excellent remedy for tired nerves.

> "One of the finest ways to relieve tension is walking.
>
> ". . . A walk in the evening is far more sensible than taking sleeping pills. And, we might add, it is more relaxing."
>
> Clifford R. Anderson, M.D.,
> *Modern Ways to Health,,* pp 472, 473

*Freedom from the burden of sin* brings true rest, and is essential for health of body and mind,— and for freedom from stress.

## *Sleep. . .*

**Regular, adequate, time must be included in the daily program for sleep.**

Periods of relaxation, rest, and sleep are necessary to permit the body to restore itself to a normal condition. Dr. Manning Clark said:

“Everything in animal life requires, among other fundamentals, that there be exercise and rest following each other in regular order; and anything that disturbs the proper relation or proportion between them disturbs the health and efficiency. For example, the brain cell, after a day’s work, becomes exhausted; but after a night in sleep it is refreshed and ready to resume its normal work.”

R. Manning Clarke, M.D., *Signs of the Times,* February 12, 1924,. Quoted by Jay M. Hoffman, Ph.D. *The Missing Link,* 299;

“The purpose of sleep is to repair losses and damage caused by work. During our waking hours, we eat as well as work; that is, we both consume and replenish our stores of energy. But the energy we take in as food is not available for use until it has been deposited to become a part of the living cells. Food in the stomach, even food in the blood and body fluids, does not add to our store of energy until it becomes a part of the body [cells]. After being digested, it must be assimilated; this work is largely done during sleep. **When we are awake and active, the output of energy is greater than the income, but during sleep, the relation is reversed.** Energy is deposited in the cells more rapidly than it is expended; it is stored in the cells in the form of granules which may be seen with the microscope. When the cell is fully rested, it is well filled with minute energy granules. A tired cell shows the granules greatly reduced in number.

“Every nerve center—every cell, in fact—is a storage battery. Work discharges the battery. During sleep, the battery is recharged. This is not a metaphor, but an actual physical fact.”

Jay M. Hoffman, Ph.D., *The Missing Link,* 303, 304

**Sleep deprivation not only weakens the body, but it also adversely affects mental abilities.**

Many try to accomplish more in a given time than they should try to do, when their judgment tells them that they should rest. They are living on borrowed capital, and often lose more than they gain. They work on nervous excitement when their energies have been exhausted. No immediate injury may be realized, but these habits undermine the constitution.

The reserve energy should not be recklessly exhausted through over-taxation. Those who do this may be the losers. Their usefulness may be lessened, if life itself is not destroyed.

# How much sleep do I need?

The average need is 7 to 9 hours of each 24 hours.

Body temperature, and with it vitality, drops to a daily low about 2:00 a.m., rising slightly during waking hours.

Several hours of sleep to replenish energy reserves are needed before this "low ebb" in body metabolism. Two hours of sleep before midnight are worth 4 hours of sleep after midnight. It aids in restoring body reserves before the critical low ebb.

With enough sleep you should awaken refreshed, without the aid of an alarm clock or other awakening device.

The use of sleeping pills should be avoided. Drugged sleep often leaves a person fatigued and irritable, with impaired vitality and initiative

(See M. G. Hardinge, M.D., *Medical Evangelism,*, 62; referencing V. G. Heiser, *Toughen Up, America!*, 112)

# Some hindrances to true rest and sleep

Carelessness in allowing adequate time for rest and sleep.

Stress, excitement, tensions, worry, anger,— "root of bitterness."

> *A merry heart doeth good like a medicine: but a broken spirit drieth the bones.* Proverbs 17:22

Stimulants, such as tea, coffee, and cola drinks, that do not nourish, but only whip the body on to more activity, when it may be calling for rest. (Review *Stimulants*, Lesson 5.)

A late meal, or bedtime snack. This may at first cause a person to feel sleepy, as blood is drawn away from the brain to the stomach. However, food remaining in the stomach during sleeping hours prevents sound, restful sleep.

Lack of vigorous exercise:

> *The sleep of a labouring man is sweet, whether he eat little or much: but the abundance of the rich will not suffer him to sleep.*
> Ecclesiastes 5:12

# Tips for restful sleep

Be sure the stomach is through with its work well before bedtime.

Do not engage in heavy physical nor mental activity just before bedtime. Relax.

Take a leisurely stroll in the evening.

Take a warm or tepid bath just before retiring.

Assure an ample supply of fresh air in the bedroom, summer and winter. Better yet, sleep outdoors if possible! Sleep, with an abundance of fresh air, is more refreshing.

# TEEN NEEDS . . .

## Help them choose something better

**Many chronic diseases begin in childhood and youth, as the result of poor dietary and other lifestyle habits. Scholastic achievements may be hampered from a lack of good nutrition, and failure to practice general good health habits.**

American children and adolescents generally eat fast foods and/or snack foods such as hamburgers, cheeseburgers, french fries, pizza, chips, soda pop, candy bars, and ice cream. These "foods" are high in fat, sugar, and salt, and low in fiber. Fruits, vegetables, and whole grain foods are seldom included in their diet.

Some food manufacturers promote the sale of their products with advertisements directed to children and youth who are easily convinced that they must eat the product advertised. Most of them are unaware of the results of their dietary choices.

Dr. Craig comments about some of these "foods": "The cereal manufacturers seem to do a very good job of packaging wheat, rice and corn as candy! Some contain about 3-4 teaspoons of sugar per one ounce serving!

"The refining of grains takes a hefty toll of vitamins and trace minerals, with about 70% of micronutrients typically being lost during refining. However, many of the manufacturers add a whole gamut of vitamins and minerals so that the breakfast cereal actually becomes more like a food supplement. In fact, some have described the cereals like Total and Product 19 as flaky, crunchy, toasted vitamin pills! Why such a description? Because one serving of the cereal contains 100% of the RDA for all of the added vitamins and minerals. It should be noted, however, that none of the trace minerals lost during refining are replaced."

Winston J. Craig, , Ph. D., R.D.,
*Nutrition for the Nineties,* 249-250

# What can be done about the problem?

Parents should set a good example by practicing the **eight true remedies**, and they should teach their children the benefits of a healthy lifestyle, encouraging them to "choose something better." Children should understand the benefits to be derived from a nutritious diet, and the results of a poor diet. This instruction should be given in a cheerful, positive manner. Children and youth who have adopted a healthy lifestyle have been delighted with their increased energy and improved scholastic achievements.

Establish meal patterns to meet the needs of the family, and assure that adequate, nourishing, and attractively served foods are available for them. Prepare lunches for students in schools that do not provide satisfactory lunches.

Young people, and the young in heart, will enjoy the recipes with this lesson.

# THE IMMUNE SYSTEM AND SELF-POISONING. . .
## *Preparing the way for disease*

**"Disease never comes without a cause. The way is first prepared, and disease invited by disregarding the laws of health."** Ellen G. White, *Healthful Living,* 60

"If physical exercise were combined with mental exertion,

the blood would be quickened in its circulation,

the action of the heart would be more perfect,

**impure matter would be thrown off,** and

new life and vigor would be experienced in every part of the body. . . .

They closely apply their minds to books, and eat the allowance of a laboring man. Under such habits

some grow corpulent, because the system is clogged.

Others become lean, feeble, and weak, because their vital powers are exhausted in throwing off the excess of food;

the liver becomes burdened and unable to throw off the impurities in the blood, **and sickness is the result.**"

Ellen G. White, *Healthful Living,* 207

*And said, If thou wilt diligently hearken to the voice of the Lord thy God, and wilt do that which is right in his sight, and wilt give ear to his commandments, and keep all his statutes, I will put none of these diseases upon thee, which I have brought upon the Egyptians: for I am the Lord that healeth thee.* *Exodus 15:26*

Some of the effects of poor dietary and general health habits have already been presented in these lessons. It is apparent that choices made at the dining table, and the general lifestyle habits, determine how well the system, and each individual cell, will function. These choices can make the difference between health and disease,— between a full, enjoyable life, or one hampered by disease and suffering. It is never too late to begin practicing a lifestyle that will promote better health. The degree of improvement will depend on the ability of the body to respond.

**Self-poisoning** is the accumulation of wastes from normal metabolism because of poor elimination through kidneys, bowel, lungs, or skin; wastes from improper metabolism due to poor nutrition and/or health habits; and/or from poisonous substances taken into the body. These conditions promote both degenerative and contagious diseases, since the **immune system** is weakened in the process.

**Good health depends on a clean, free-flowing bloodstream.**

**Failure to practice any one of the eight true remedies may contribute to self-poisoning and weakening of the immune system, such as—**

The use of depleted foods, or an imbalance of nutrients even from good foods, clogs the system.

Scanty, impoverished, ill-cooked food depraves the blood by weakening the blood-making organs. Also, rich and complicated mixtures destroy health.

Flesh meats make a poor quality of blood, and create feverish conditions in the system, planting the seeds of disease in the blood and tissues.

Eating too frequently, too many varieties at one time, and/or too large quantities of food, overtaxes the digestive organs. The food may ferment and fill the system with toxic substances, which may bring on acute disease, and sometimes death.

Harmful substances, if used, add their poisons to the system.

Vital exchanges may fail to take place in body cells for lack of exercise and/or sufficient oxygen.

Failure to use enough water, inside and outside. Impurities eliminated through the pores of the skin will be absorbed if the skin and clothing are not frequently cleansed. The body's effort to again throw off these impurities produces fevers and disease.

Breathing the same air over and over in tightly closed buildings is another cause of disease. Sore throat, lung diseases, and liver complaints are brought on by breathing impurities and waste matter thrown off through the lungs and pores of the skin.

The immune system may be depressed for lack of sunlight.

Lack of adequate rest burdens the system with wastes, and lowers the resistance to disease.

Depression, gloominess, and sadness are fruitful causes of disease.

Intemperance of any kind can be a contributing factor.

**Remember, all body wastes should be eliminated promptly from the system so that body cells will have clean surroundings in which to do their work. This will help to strengthen the immune system, and to prevent self-poisoning.**

Many diseases result from nature's effort to eliminate poisonous wastes, and rid the body of impurities.

The digestive system is the front line of defense. If the body is well nourished, and the other **eight true remedies** are practiced, the system should function as well as possible, considering inherited weaknesses and/or effects of earlier practices. However, a compromised "front line" impairs the work of the liver, which in turn impairs the work of the kidneys, lungs, and skin in their work of eliminating wastes. This places an extra burden on the heart as it tries to pump more blood through these organs for cleansing. On and on the domino effect goes!

Poor circulation to the joints and ligaments results in damage to cartilage and other tissues. Lack of proper nutrients and the accumulated wastes may bring on rheumatism, arthritis, bursitis, neuralgia, neuritis, hardening of the arteries, cancer, and other degenerative diseases.
See Julius Gilbert White, *Abundant Health, 119-139*

When Dr. Jay M. Hoffman was a student in college in Takoma Park, Maryland, he heard a lecture by Dr. D. H. Kress in which he related the following:

"Dr. Alexis Carrel of Rockefeller Institute, winner of the Nobel Prize in 1912, has demonstrated that it is possible to keep tissue alive almost indefinitely by merely keeping it free from its own wastes which are poisonous to it, and supplying it with the nutrients it needs. A chicken dies normally at the age of 10 or 12 years. But the tissue he separated from the heart of a chicken 18 years ago is just as much alive today as it was then. It really appears as though he will be able to keep it alive indefinitely."

Years later when Dr. Hoffman was living in New York he called the Rockefeller Institute to find out if they still had the tissue of the chicken's heart that they were keeping alive. "They said no. They kept it alive from 1913 to 1947. After 34 years they were convinced that they could keep it alive for an eternity so they threw it out. How were they able to keep it alive? By keeping it freed from its own wastes. How are we to keep healthy? By keeping our tissues and our bloodstream clean."

Jay M. Hoffman, Ph.D., *The Missing Link,* 139, 140; from a lecture by Daniel H. Kress, at Washington Sanitarium and Hospital, Takoma Park, Maryland.

## *The positive side*

Practicing the **eight true remedies** through God's enabling grace is a health preserving, health restoring, pathway. Lifestyles, as are physical strengths and weaknesses, may be inherited. But lifestyles can be changed for the better.
Many degenerative diseases have been reversed or markedly alleviated by those who live a lifestyle in harmony with the laws of life and health. A

healthy body, with an active immune system, is less likely to be invaded by infectious diseases.

# *THE BRAIN AND NERVES*

"The brain is the capital of the body,
the seat of all the nervous forces and of mental action.

The nerves proceeding from the brain control the body.

By the brain nerves, mental impressions are conveyed to all the nerves of the body as by telegraph wires; and they control the vital action of every part of the system.

All the organs of motion are governed by the communications they receive from the brain." Ellen G. White, *Healthful Living* 193

*Thou wilt keep him in perfect peace, whose mind is stayed on thee: because he trusteth in thee.* *Isaiah 26:3*

"It was a wonderful thing for God to create man, to make mind. He created him that every faculty might be the faculty of the divine mind. . . The Lord Jesus is the author of our being, and he is also the author of our redemption; and every one who will enter the kingdom of God must develop a character that is the counterpart of the character of God."
Ellen G. White, *Healthful Living,* 12

Lifestyle habits of eating, sleeping, dressing, working,— of living, affect the brain, the citadel of the whole person. The harm done to the brain when these habits are not in harmony with the laws of health, prevents the attainment in life of that which otherwise would have been possible. All parts of the body are in constant communication with the brain, and notify it of any injury done to them. Anything that disturbs the circulation of the electrical currents through the nervous system is harmful to the body and the mind. Cooperation with the laws written on every nerve and fibre of our being promotes health of body and mind.

**"The senses . . . are the avenues to the soul,"-- guard them well.** *Ibid.,* 193

# *The equipment*

**The brain is the control center, or citadel of a person**.

The structure of the **nervous system** is the most complex and delicate of any part of the body. The entire cranial cavity is filled by the brain, which is made up of untold myriads of nerve cells and nerve fibers,— the largest mass of nerve tissue in the body.

Moment by moment the brain is dependent on a well-balanced circulation of blood, blood that brings needed nutrients, oxygen, and other supplies, and removes wastes. It maintains no reserves. It uses about 20% of the heart's output of blood.

Practicing each of the **eight true remedies** will help to keep the mind active and vigorous.

There are two parts to a *nerve* cell; *nerve body,* and *nerve fibres.* The fibre is a continuation of the cells. *Ganglia* are mini-communication centers of grouped nerve cells in central parts of the body. *Nerve fibres,* grouped in bundles, ramify to every part of the body.

Each nerve cell has its own function to perform, and each is related in some way to all the others. Every part of the body is in constant communication with the rest of the body through this intricate system as electrical impulses travel rapidly through nerve fibres. (Chemicals, or hormones, that travel through the blood and body fluids provide another communication system in the body.)

Three major structures may be noted in the human **brain**, the forebrain or cerebrum, the cerebellum, and the brainstem.

The *cerebrum* constitutes by far the largest part of the *forebrain.* It receives impressions sent to it from the spinal cord and midbrain, and acts upon the information received. The ability to think, to reason, to see, to come to conclusions, and to listen to the voice of conscience, is contained in the cells of the cerebral cortex which is part of the cerebrum. This portion of the brain, which is unique to humans, enables us to communicate with other people, and with our Creator.

The *cerebellum* is closely connected to the brainstem. It is concerned with muscular coordination, posture, and balance.

The *brainstem*, (upper end of the spinal chord). carries out the automatic functions, controlling the heart rate, blood pressure, and depth and rate of breathing, among many other functions.

The spinal cord is really a continuation of the brain down through the spinal canal.

# Proper training and use of the mind

"The Bible should be made the foundation of study and of teaching. The essential knowledge is a knowledge of God and of Him whom He has sent." Ellen G. White, *Ministry of Healing,* 401, 402

"From the study of the Word of life, students may come forth with minds expanded, elevated, ennobled." *Ibid.* 466

The plastic young minds of children should be encouraged to develop naturally. A child should be taught to observe accurately and thoroughly, and to use the powers of reason. Much can be taught in the pre-school years without forcing the child with formal lessons. The alphabet and common words can be taught, many lessons from the great out-of-doors, and even history can be told in the form of stories. Lessons can also be taught through useful work, from life's experiences,— and, of course, from the Scriptures.

Young people should be taught how to think and study to the best advantage. As stated by Dr. Kellogg:

"Students should be thoroughly imbued with the idea that the object of their school work is not so much to impart to them a knowledge of facts, as to teach them how to acquire facts, how to investigate, how to compare, how to reason, how to utilize knowledge after it has been acquired."

J. H. Kellogg, M.D.., *The Home Book of Modern Medicine,* 163

With this type of training young people will be prepared to use their knowledge to practical advantage, and will be better prepared to reason from cause to effect, and to make right choices.

Excitement, whether in reading, viewing, or doing, tends to unseat the reasoning powers. However, one who will "take the Bible as his guide, and stand firm for principle, . . . may aspire to any height of attainment." Like Daniel, "they may advance as he did in all branches of learning. Being pure-minded, they will become strong-minded. Every intellectual faculty will be quickened."

Ellen G. White, *Ministry of Healing, ,* 465, 466

With the ability to acquire knowledge, to investigate and reason, and to use the knowledge acquired, our Creator also gave freedom of choice. He respects the choices made, and does not force the will.

We may choose to live in the dark shadows of discouragement, doubt, and unbelief, or to come out into the sunshine of His love, and to drink deeply from the fountain of His grace. The choice is ours.

**"Choose something better."**

# Is mental exercise hazardous to health?

"The mind does not wear out or break down so often on account of diligent employment and hard study, as on account of eating improper food at improper times, and of careless inattention to the laws of health."

"The proper exercise of mind and body will develop and strengthen all the powers. Both mind and body will be preserved, and will be capable of doing a variety of work." Ellen G. White, *Healthful Living,* 198, and *204*

Mental exercise lies at the foundation for mental growth and mental health, and seems also to furnish a firmer basis for muscular and general physical health. As the brain grows in strength and vigor with exercise, it becomes capable of sending out more vigorous impulses to the various parts of the body that depend on it for supplies of force. The more vigorous the brain, the more vigorous will be the force.

Mental work should not break down the constitution, as many believe. Those who break down under a study or mental (professional) work program, as a general rule, have violated some, or most, of the general laws of health.

Dr. Kellogg presents two interesting studies of brain workers and longevity. One of these studies was made by Dr. Geo. M. Beard, of New York, of 500 of the greatest men in history, including men like Byron, Raphael, Pascal, Mozart, Keats, etc., who died comparatively young. The study focused on the age at which these people did their most productive work; it also showed the average age to be 64.2 years at death. The average age of all classes who lived past 20 at the time the study was made, was 50 years. Dr. Beard concluded:

"1. That the brain-working classes,— clergymen, lawyers, physicians, merchants, scientists, and men of letters,— live very much longer than the muscle-working class.

"2. That those who follow occupations that call both muscle and brain into exercise, are longer-lived than those who live in occupations that are purely manual.

"3. That the greatest and hardest brain-workers of history have lived longer on the average than brain-workers of ordinary ability and industry.

"4. That clergymen are longer-lived than any other great class of brain-workers."

Another study of sixty more recent brain-workers, including Franklin, Hayden, Michael Angelo, and Newton, showed an average age at death of 82.

J. H. Kellogg, M.D.,
*The Home Book of Modern Medicine,* 159-161

# T R U S T . . .

## With Praise

Watchword

**"A Cheerful, Hopeful, Peaceful, Frame of Mind."**

"We should encourage a cheerful, hopeful, peaceful frame of mind; for our health depends upon our so doing." Ellen G. White, *Healthful Living,* 233

*And he hath put a new song in my mouth, even praise unto our God: many shall see it and fear, and shall trust in the Lord.* *Psalm 40:3*

**"A person whose mind is quiet and satisfied in God, is in the pathway to health."** *Ibid. 235*

**"The consciousness of right doing is the best medicine for diseased bodies and minds. He who is at peace with God has secured the most important requisite to health. The blessing of the Lord is life to the receiver."** *Ibid. 233*

> "The harmonious, healthy action of all the powers of body and mind results in happiness; the more elevated and refined the powers, the more pure and unalloyed the happiness.
>
> "The mind should dwell upon themes relating to our eternal interests. This will be conducive to health of body and mind."
>
> Ellen G. White, *Healthful Living,* 31
>
> "A contented mind, a cheerful spirit, is health to the body and strength to the soul. Nothing is so fruitful a cause of disease as depression, gloominess and sadness."
>
> *Ibid.* 232

We live in a world where difficulties, trials, suffering, and sorrow await us all along the way. Some make these burdens doubly heavy by always anticipating troubles. Some try to drown their trials and burdens with drink, or exciting amusements, which only complicate their problems.

The human heart not only longs for rest, but it also needs the stability that comes with perfect confidence in the Mighty One who can safely guide us through the maze of life's experiences. It is good to know that if the life is surrendered to His guidance and service it will never be placed in a position for which He has not made provision. He is the constant Guide and Help to all such. One who can be trusted.

One must know Him in order to trust Him, and knowing Him develops trust. The whole Word of God is a revelation to us of the glory (character) of God as revealed in Christ. It becomes the great instrumentality in the transformation of character as it is received, believed, and obeyed by His enabling grace. It is the constraining force, the grand stimulus, that quickens the physical, mental, and spiritual powers. It directs the life into right pathways. The soul that receives the knowledge of God as revealed in Christ will be recreated in the image of God through His grace.

Search His Word for His promises. Learn to claim them as if promised to you alone. Trust will grow brighter as you see these promises fulfilled in your life. Open your heart to Him in prayer, as friend to Friend, and He will direct your paths, and keep you.

There are several lifestyle enhancement centers where the **eight true remedies** are taught and practiced. Many people come to these centers to recover their health. All are benefited by the changes made in their lifestyles. However, it has been observed that those who put into practice only the first six and a half of the true remedies, including only an improvement in their physical rest from the Remedy of Rest, never make as much improvement as those who put into practice all of the **eight true remedies.**

Health philosophies of every type are being promoted in the world of today. Many popular philosophies teach that man is innately good; that within him reside the elements of goodness, and powers which will relieve him of troubles and sickness, and thus the desires of his heart will be realized. These teachings do not recognize that man is a transgressor, and that his transgressions are the primary cause of his troubles, and that they must have his attention. Neither do they recognize that a loving and forgiving God will minister to our healing and restoration as we yield our hearts and lives to Him, *fully trusting him in every aspect of our lives*. The popular "mind cures" being offered seldom emphasize obedience to the laws of life.

One of the most dangerous of all mental philosophies is that which calls for one mind to surrender to another human mind. This is the enemy's plan to ruin a person's experience, and the right use of his/her own will. Hypnotism is a terrible substitute for surrender of the will to God in full and complete trust. Why trust another human being who shares in the frailties of all mankind? The Almighty, the One who can supply all our needs and direct our paths, invites us to trust Him as a child trusts his loving parents. His restoring power will be manifest in our bodies if our will and ways are in accordance with His will and ways. "God has pledged himself to keep this living machinery in healthful action if the human agent will obey His laws and co-operate with God."

Ellen G. White, *Healthful Living*, 31

"God does not design that our will should be destroyed, for it is only through its exercise that we can accomplish what He would have us do. Our will is to be yielded to Him, that we may receive it again, purified and refined, and so linked in sympathy with the Divine that He can pour through us the tides of His love and power." Ellen G. White, *Thoughts from the Mount of Blessing* 62

**The will should be surrendered only to the One who made it and gave it to us. Claim these promises.**

*Fear the Lord, and depart from evil. It shall be health to thy navel, and marrow to thy bones.* *Proverbs 3:7,8*

*Thou wilt keep him in perfect peace, whose mind is stayed on thee: because he trusteth in thee. Trust ye in the Lord for ever: for in the Lord JEHOVAH is everlasting strength.* *Isaiah 26:3*

*I the Lord have called thee in righteousness, and will hold thine hand, and will keep thee,. . .* *Isaiah 42:6*

*Behold, God is my salvation; I will trust, and not be afraid: for the Lord JEHOVAH is my strength and my song; he also is become my Salvation. Therefore with joy shall ye draw water out of the wells of salvation.*
*Isaiah 12:2,3*

# MENU PLANNING

Watchword
***Variety and simplicity***

> "In every line of cooking the question which should be considered, is,
>
> How can the food be prepared in the most natural and inexpensive manner?
>
> And there should be careful study that the fragments of food left over from the table be not wasted." Ellen G. White, *Healthful Living, 80*

Menu planning is important. The appetite should not be allowed to rule, as the mind will be brought under its control if it does. Learn what kinds of food best nourish the body, and follow the dictates of reason and conscience.

Not all wholesome foods are suited to our needs under all circumstances. Foods should be selected that are suitable to the season and climate where we live, and to the occupation(s) engaged in. Those doing hard physical labor might benefit from foods not suitable for sedentary workers, or those engaged in intense mental activities.

An ample variety of foods have been provided by our loving Creator. From these we may choose what we know to be best for our needs.

The watchwords **Variety and Simplicity** may at first appear contradictory, but in reality they work together in menu planning. A variety of foods should be provided from day to day, and season to season. Also, the same foods should not be presented at the table looking and tasting the same every time. Vary the way potatoes and other foods are served. Yet each meal should include only three or four dishes. Here, simplicity should rule. A change can be made at the next meal.

Liquid foods should be limited. This includes not only drinking water or juices, but also soups and stews. Solid, chewy, foods are much better for the digestion.

It is best not to use fruits and vegetables at the same meal. Fruits may be combined with grains and seeds, and vegetables may be combined with grains, legumes, and seeds. Some foods, such as tomatoes, avocados, melons, pineapple (a swollen stem), and bananas, combine well with either fruits or vegetables for most people. Citrus fruits also combine well with either fruits or vegetables, adding a much desired tartness to salads and salad dressings. Experience is a good teacher in this area. Foods that combine well for one individual may not be used together by another person.

# So, what is a fruit, and what is a vegetable?

Fruit is the seed-containing product of a blossom. In addition, fruits are starchy when immature, the starch turning to sugar as it ripens and sweetens. Examples: melons.

Vegetables are parts of plants such as the leaves, stems, roots, blossom and green pods. In addition, some of the "fruits" blend well with vegetable meals. Vegetable-type "fruits" are sweet when immature, but become starchy as they mature. Example: squash.

Some foods, such as avocadoes, squash, grains, nuts, seeds, and legumes, go well with either a fruit or a vegetable meal.

Fruits digest more quickly than most other foods. Their sugars are easily digested and assimilated. They may ferment in the stomach while waiting for other foods that take longer to digest. Also, the chemistry needed to digest the one may conflict with the chemistry needed for the other.

These are broad guidelines. Learn what foods, and food combinations, are best for you.

## But, I cannot afford to buy the expensive ingredients called for in many of the recipes!

At first glance some of the recommended foods, and ingredients for recipes, appear to be expensive. One thing to consider is that the per pound cost of any food increases each time it is processed.

"Convenience" foods are truly the expensive foods. Compare the per pound cost of whole potatoes with the per pound cost of processed frozen or instant potatoes; and the per pound cost of cornmeal with the per pound cost of corn chips. Also, one must remember that the nutritive value of foods diminishes with each step in the processing cycle.

The per pound cost of whole grains is less than the per pound cost for meals or flours. The per pound cost of grains processed into pasta, chips, or ready-to-eat breakfast cereals is much greater yet!

But what about the expensive nuts and dried fruits? Compare the cost of a vegetarian cheese-type spread using only a fraction of a pound of nuts with some grain, and you will find the cost of dairy cheese to be much greater for an equal quantity. And the per pound cost of raisins, dates, and other dried fruits is less than, or about equal to, the per pound cost of candy.

A diet composed of whole, natural foods usually costs much less than does a diet composed of processed foods. There are also hidden costs for processed foods that are not apparent at the supermarket. These should also be considered, such as costs to cope with the many degenerative diseases that may result from a deficient diet and poor lifestyle habits. The bonus feature is that the natural, whole foods are not only health building, but also satisfying and delicious!

# Now for a few tips:

Foods should be prepared simply, but nicely and attractively. Eye appeal has much to do with how well food is relished.

As an artist color-coordinates a painting, and an interior decorator color-coordinates a room, a meal can be "food coordinated" to keep it more simple. This can be especially helpful when preparing for company, when the tendency is to have a greater variety of foods.

An example:

Main dish: *rice* and legume casserole

Butter-like and/or cheese-type spreads could be made with a *rice* base

Plan to have simple salads with more complicated casseroles, and mixed salad with simple main dishes.

If you choose to have a cooked vegetable with a main dish, or if vegetables are included in the main dish, repeat some of the same vegetable(s) in the salad, rather than trying to have different ones in every dish. Such as:

Main dish:
Legume seasoned with *carrots,* onion, garlic, and herb seasoning

Salad:
*Carrot* salad, **or**

Green salad with some shredded *carrot* for color, **or**

*carrot* and celery sticks.

# How to plan for adequate nutrition

Since carbohydrates are the preferred fuel for most body cells, we would do well to base our meals on carbohydrate-rich foods rather than heavy protein foods. If foods are chosen each day from each of the Food Groups, and choices within the Food Groups are varied from meal to meal, the protein content, as well as that of other nutrients, should be adequate.

For example: choose from these food groups each day:

| **Food Group** | **Number of Servings/Day** |
|---|---|
| Fruits | 3 to 4 |
| Vegetables | 3 to 6 |
| Grains | 5 to 10 |
| Legumes | (5 - 6 times/week) |
| Olives | 2 to 3 |
| Avocados, nuts/seeds | 1 to 2 |

Vary the fruits, vegetables, grains, and legumes used from meal to meal, and from day to day; assuring color contrasts, and flavor and texture changes. Be sure to include an ample supply of green, leafy, vegetables, and 2 to 3 *different* grains each day.

The ratio of nutrients, such as carbohydrates, proteins, fats, and minerals, varies in each food group. Of course, each fruit, vegetable, or grain, contributes its unique combination of nutrients to our needs. This is why we need foods from each food group

Many people who have not learned to relish vegetables and fruits tend to consume a large proportion of grains and legumes. This is especially true of those changing from a “meat and potatoes” regimen to a vegetarian nutrition plan.

However, to maintain a health promoting balance in the body chemistry it is best to select the recommended servings from each food group. Generally, a wide variety of foods are available so that each person should be able to find an abundant variety to meet his or her tastes and preferences. However, some may need to train their taste buds to enjoy new taste treats.

Of course, there are those who have allergy problems. If this is a problem, care must be used in selecting foods that can be tolerated.

Once more we would remind you to eat an abundance of fruits and vegetables, together with the grains, legumes, nuts and other foods,— and, as much as possible, eat the fruits and vegetables raw.

**“Eat largely of fruits and vegetables.”**

## *A summary of menu-planning guidelines*

1. Use unrefined, natural foods as much as possible.
2. Fruits and vegetables may be used freely, providing a larger number of daily servings.
3. Energy foods, such as grains and legumes, should be used in amounts adequate to meet energy needs and maintain weight.
4. Concentrated foods, such as nuts, avocados, and honey, should be used more sparingly.
5. Include a wide variety of foods from day to day; featuring foods in season.
6. Do not include a wide variety of foods in one meal. The watchword here is simplicity; three to four dishes for one meal should suffice.
7. It is best not to use fruits and vegetables in the same meal. Combine vegetables with grains in one meal; fruit with grains in another meal.
8. Use a variety of colors, textures, and flavors; not all sweet, nor all tart or salty.
9. Avoid “one-sided” meals; such as all (or mostly) concentrated foods, or all (or mostly) juicy, less concentrated, foods.
10. Obtain foods as fresh as possible from garden and orchard, and include an ample supply of raw foods with every meal.

# *M E N U   P L A N N E R*

| | BREAKFAST | DINNER | SUPPER | PREPARE AHEAD |
|---|---|---|---|---|
| **SUN** | | | | |
| **MON** | | | | |
| **TUE** | | | | |
| **WED** | | | | |
| **THU** | | | | |
| **FRI** | | | | |
| **SAT** | | | | |

# Keep mealtimes pleasant

The attitudes and conversation at mealtime should be uplifting and pleasant. It is not a time to resolve problems. The atmosphere at a meal influences not only the amount of food eaten, but also how well it will be utilized by the body. Dr. Simonsen at Johns Hopkins University counted the number of bites people took while listening to different types of music. Note also the effect it had on the quantity eaten.

| Type of music | Bites/ minute | Length of time to eat meal | Requests for Seconds |
|---|---|---|---|
| None | 4 | 40 minutes | One Third |
| Spirited | 5 | 30 minutes | one half |
| Soft flute | 3 | nearly 60 minutes | None; Many left 1/4 of food |

S. Gershoff (editor). Trying to Eat Less? Change the Station. Tufts Univ. Diet and Nutr Letter 9 (4): 1-2, 1991. Referred to by Winston J. Craig, *Nutrition for the Nineties*,, 247.

Take time to enjoy the varieties of flavors and textures in the natural foods. Foods may be ever so nourishing, but if they are not thoroughly chewed they will not do the good that they might. The watch-word here is **"Chew, chew, chew."**

But good food alone will not bring the benefits that might be enjoyed when combined with the rest of the **eight true remedies.** As exercise is also important, especially if it includes fresh air and sunshine, another good watchword is **"Walk, walk, walk."**

**Enjoy the bounties of orchard, field, and garden, that our Creator has preserved for us from the Garden of Eden,— a foretaste of the better land.**

**Remember, He has given you the power of choice, so—**

***"Choose something better!"***

The recipes with this lesson include special dishes for special occasions.

# Vital vigor and energy

Each person has been endowed with a measure of constitutional force, some with more, and some with less. The physical and mental condition of parents is perpetuated in their children. If the lifestyle of the parents was contrary to physical law, the injury done to themselves is repeated in future generations.

However, much can be done to preserve the vital force each person has. By bringing the lifestyle into conformity to the laws God has implanted on every nerve and fibre of our being health will be insured, and the constitution will not break down.

We can ask God in faith to bless our efforts to preserve health when we do all we can on our part to have health. If His name can be glorified, He will answer such a prayer. However, God does not work a miracle to preserve or restore the health of those who make themselves sick by their own course of action.

Of ourselves we cannot submit our inclinations and desires to the will of God. But if we are "willing to be made willing", God will accomplish this for us. Our wills will then be in harmony with His will, and we will delight to do His will.

# A sampling of rational remedies

Many simple **herbs** can be used with great benefit. Those that answer to the definition of *food* in Lesson 1, nourishing the system without doing harm, may furnish substances not found in the usual foodstuffs. Some of these, such as red clover tea, are very helpful in cleansing the bloodstream of impurities. Care should be taken not to use any herbs that have harmful properties. There are many books on herbs and their properties that will aid in the search for beneficial herbs.

Learn the edible plants that grow in your area. Many will furnish a supply of greens to add sparkle to winter or early spring salads, or various other dishes, when garden greens are not yet available.

Nourishing herbs may be used freely, cleansing and mildly alterative herbs should be used prudently, and harmful herbs avoided.

# How to make herb teas

Use about one-third to one-half cup of dried herbs (leaves or flowers) for a quart of water, or about one to three tablespoons of seeds or chopped roots. Various combinations may be used to suite the taste or need.

Seeds and chopped roots should be added to cold water, and heated slowly to the simmer point; then add leaf and flower herbs. Let steep 15 to 20 minutes. Strain, and use within 24 hours.

# Some suggestions

*Alfalfa tea* is an aid to digestion, a very nourishing herb. It is rich in vitamins, minerals, and trace elements.

Tender green alfalfa tips may be used in green drinks, in green gravies and the like. Blend a few tender alfalfa tips with a sprig or two of mint in a little pineapple juice, or juice of choice, for a green drink. Add blended alfalfa tips to a "cream sauce" for a green gravy. Delicious on baked potatoes. (Keep a few plants growing in your back yard.)

*Catnip tea* will quiet the nerves.

*Dandelion* is rich in vitamins and minerals. It helps remove toxins from the system.

*Fenugreek seeds* aid the digestive organs. Use in teas, or sprouted.

*Hops tea* helps to induce sleep.

*Licorice root* has properties that help stabilize the energy level. Use only a small amount with other herbs. It should not be used indiscriminately, nor on a regular basis. It may cause salt retention and high blood pressure.

*Red clover tea* is an excellent blood purifier. It has anticarcinogenic properties.

*Sage tea* is an excellent remedy for colds and flu. It seems to help neutralize and eliminate toxins produced by the infection.

*Yarrow* has properties that help diabetics. It is also good for treating infections.

## Bran water:

Bran is an excellent source of fiber. It is also a very good source of minerals and some vitamins. Bran water helps replenish the minerals in the body. It may be used as a liquid in gravies, sauces, stews, and breads to increase the mineral content, or added to herb teas. To make bran water:

1 quart raw wheat bran
2 quarts of cool water.

Combine bran and water. Bring slowly to boiling point and simmer for a few minutes. Let steep 15 minutes or more. Strain, pressing gently with a spoon to extract the liquid. Return bran to the kettle, add a little more water and stir well. Strain again. (this liquid will not be as concentrated).

### Activated charcoal

Activated charcoal is a remedy that should be in every household. It is a very effective agent for absorbing a variety of drugs and poisons that may have been accidentally swallowed. It is also an excellent remedy for intestinal disorders, insect bits, and many other applications. However, it should not be used on a chronic basis.

# Try the following to build your immune system

A **contrast shower** is very good as a morning "awakener." It stimulates the circulation and immune system.

Use warm to hot water for 2 to 3 minutes,

Follow with cool to cold water for 30 to 60 seconds.

**Three "contrasts"** make an excellent treatment to stop a threatening cold, if done as soon as the first symptoms appear. Use slightly warmer/colder water with each cycle, finishing with water as cold as can be tolerated.

Follow this treatment with rest and plenty of fluids.

A **salt glow** not only increases the circulation to the skin, but also stimulates the general circulation, and builds resistance to cold. It is a good skin toner, and gives a person a sense of well being. You can give yourself a mini salt glow.

Do not use the salt glow if you have an acute illness, skin rashes or lesions; nor should it be repeated too frequently since it may irritate the skin.

**Procedure:**
Place a cup of course salt in a pan and moisten it just enough to make the salt crystals stick together.

Place a foot tub with hot water (105 to $110^0$ F) in a tub or shower stall. Have the room comfortably warm.

Stand in the tub of hot water. Take about a tablespoon of the moistened salt and distribute it evenly over the palm of your hand(s).

Rub the salt lightly, but briskly over the surface of the skin until it is pink. Do the arms first, then the legs. Work from the fingers to shoulders, and from toes to hips. Proceed with the chest, abdomen, hips, and buttocks.

Finish with a quick shower to remove all the salt, then towel dry.

A **cold mitten friction** is another method of stimulating the circulation in the skin. This in turn stimulates the circulation in the whole body. It aids in building resistance to cold, and in building the immune system.

Use friction mitts or loofah mitts, dipped in cold water ($40^0$ $70^0$ F) and wrung dry. Keep warm. Wrap yourself in a sheet or robe exposing only body part being treated. Proceed as for **salt glow.** Omit the shower to finish.

**Finish all baths with cool to cold water to keep the skin in good tone, except a bedtime tepid bath taken to relax the body and help induce sleep.**

See the Recommended Reading list for books with full descriptions of these measures and applications, and many more.

# LEAVES FROM THE TREE OF LIFE

*In the midst of the street of it, and on either side of the river, was there the tree of life, which bare twelve manner of fruits, and yielded her fruit every month:* ***and the leaves of the tree were for the healing of the nations.*** ***Revelation 22: 2***

# RECIPES

## BREAKFAST BARLEY

| | | |
|---|---|---|
| 1 | c | pearl barley |
| 3 | c | water |
| 1/2 | tsp | salt |

Dextrinize barley, by stirring constantly in a dry pan over medium heat for several minutes, until it just begins to brown Heat water with salt in slow cooker while grain in dextrinizing. Add grain to water in slow cooker, and let cook overnight, or several hours. Sprinkle with chopped nuts, raisins, or other dried fruit if desired. Serves 4 to 6.

*Variations:* Replace part of the barley with an equal amount of millet or brown rice.

## NUT MILK

| | | |
|---|---|---|
| 1 | qt | water |
| 1 | c | almonds , blanched (or clean, raw cashews) |
| 1/4 | tsp | salt |

Blend nuts with about 1 cup of the water until very smooth. Add salt and remaining water and blend to mix; or pour into a pitcher and stir in remaining water. Strain, if desired. Cover and refrigerate. Shake well before using. This milk is excellent on hot or cold cereal, and for cooking. (Best used within 3 or 4 days.)

*Variations:* For **Grain-nut Milk,** reduce nuts to 1/3 cup, and add 1 cup hot cooked millet or brown rice and blend until smooth.

## GARBANZO-OAT WAFFLES

| | | |
|---|---|---|
| 2 1/4 | c | water |
| 1 1/2 | c | oats |
| 1 | c | cooked garbanzos |
| 2 | tbsp | date sugar, **or** 1/4 c floured date bits |
| 1/2 | tsp | salt |
| 2 | tbsp | sunflower seeds |
| 2 | tsp | vanilla |

Whiz all ingredients together. Spray waffle iron with vegetable oil spray (for the first waffle only). Bake 10 to 12 minutes in a hot waffle iron, or until steaming stops.

*Variation:* Replace cooked garbanzos with soaked raw garbanzos.

## PEACHY BREAKFAST CAKE

| | | |
|---|---|---|
| $5^1/_2$ | c | soft bread crumbs |
| $^1/_3$ | c | unsweetened coconut (opt) |
| 16 oz | can | unsweetened peaches |
| 2 | | ripe bananas |
| $^1/_2$ | c | orange or pineapple juice |
| $1^1/_2$ | tsp | vanilla |
| $^1/_8$ | tsp | almond extract |
| 2 | | bananas, sliced |
| 2 | c | raisins |

Combine bread crumbs and coconut and set aside. Blend remaining ingredients, except banana slices and raisins, until smooth. Layer in a 10 x 13" baking dish as follows: Peach sauce, crumb mixture, banana slices, raisins, etc. End with a layer of crumbs. Bake at 350° F for 30 minutes, or until golden brown. Serve warm. (**Or** mix all together, bake, cut into bars.)

## SCRAMBLED TOFU (SOUFFLE)

| | | |
|---|---|---|
| $^1/_4$ | c | clean, raw, cashews, **or** 2 tbsp raw tahini |
| $^1/_4$ | c | winter squash (**or** carrots) |
| 1 | tbsp | food yeast |
| 1 | tbsp | lemon juice |
| 1 | | clove garlic |
| $^1/_4$ | c | chopped onion |
| 3 | tbsp | corn starch (optional) |
| $^1/_2$ | c | water |
| $^1/_8$ | tsp | each, ground thyme, sage, and marjoram |
| 1 | tbsp | Bragg's liquid aminos |
| 1 | tsp | salt, or to taste |

Blend above ingredients and mix with:

| | | |
|---|---|---|
| 1 | lb | tofu, mashed fine |
| 1-2 | tbsp | red or green bell pepper, minced |
| 1 | tbsp | parsley flakes |

Pour into a 2-inch deep casserole. Bake, covered, 30 minutes at 350° F, then uncovered for 10–15 minutes, or until set. Serve with fresh tomato. This should set up like a souffle.

## RAY'S TAHINI DELIGHT

Stir about an equal amount of water into $^1/_4$ cup of raw tahini with a fork (to make desired consistency). Add a sprinkle of salt, 2 - 3 table-spoons of lemon juice, $^1/_4$ to $^1/_2$ teaspoon dill and/or other herb seasoning.

## SOY MILK

Soak 1 1/4 cups soybeans in water to cover. Drain. Cover with fresh water, bring to a gentle boil, and simmer 2 to 3 minutes. Rinse in cold water to stop cooking process. Yield: about 3 cups of prepared beans. Proceed with:

| | | |
|---|---|---|
| 1 | c | prepared soybeans, rinsed |
| 2 1/2 | c | water |
| 2 | | dates |
| 1/8 | tsp | salt |

Blend well. Strain milk through fine sieve or cheesecloth. Use pulp in **Okara Bread,** loaves, patties, spreads, and cheeses.

## BLUEBERRY TOPPING

| | | |
|---|---|---|
| 2 | c | apple or pineapple juice |
| 3 - 4 | | dried pineapple rings, chopped |
| 1/4 | c | minute tapioca |
| 2 | c | blueberries |

Simmer first 3 ingredients until thick and clear, stirring constantly. (or simmer over very low heat, stirring occasionally.) Add 1 cup of berries and blend briefly. Stir in remaining berries.

## STRAWBERRY JAM

| | | |
|---|---|---|
| 4-5 | | dried pineapple rings |
| 2 | c | unsweetened frozen strawberries |

Cut dried pineapple into small pieces. Combine with strawberries and let stand until pineapple is soft. Add small amount of juice for blending, if necessary. Blend until smooth.

## GOLDEN DELIGHT

| | | |
|---|---|---|
| 20 oz | can | unsweetened, crushed pineapple |
| 16 oz | can | unsweetened peaches or apricots |
| 1 | tbsp | minute tapioca per 1/2 cup juice |
| 3 - 4 | | dried pineapple rings, chopped |

Drain fruit and save juice. Simmer juice with diced pineapple and tapioca over very low heat until clear. Stir occasionally. When thickened, stir in diced fruit, or blend.

## HEARTY BREAKFAST BEANS

| | | |
|---|---|---|
| 3 | c | cooked pinto beans |
| 1/2 | c | chopped onion |
| 1 | | clove garlic, minced |
| 1/4 | tsp | thyme |
| 1/4 | tsp | sage |

Simmer ingredients a few minutes until onion is tender. Serve over well-cooked brown rice or other whole grain.

## TASTY SOY SOUFFLE

| | | |
|---|---|---|
| 1 | c | dry soy beans, soaked |
| 1 | c | water |
| 1 | c | tomato juice |
| 2 | tbsp | tomato paste |
| 1 | | small onion |
| 1 | | clove garlic, |
| 1 | tsp | salt |
| 1/2 | tsp | oregano |
| 1/2 | tsp | sweet basil |

Drain soaked soybeans. Blend all ingredients until smooth. Bake in a covered baking dish, placed on a sheet of aluminum foil, at 350° for 45-50 minutes., or at 325° for about an hour Serve with a tomato sauce.

*Variation:* Omit tomato paste and replace tomato juice with water. Add 1/2 cup each diced celery and bell pepper, 2 tbsp each lemon juice and Bragg's liquid aminos, and replace oregano and sweet basil with thyme and sage.

## POTATO MOUNDS

| | | |
|---|---|---|
| 6 | | medium potatoes (1 1/2 pounds) |
| 2-4 | tbsp | onion, chopped |
| 2 | tbsp | chopped pimiento<br>**or** red bell pepper |
| 2 | tbsp | parsley, chopped |
| 2 | tbsp | whole-grain flour |
| 1 | tsp | salt |

Parboil unpeeled potatoes 15 to 20 minutes (centers will still be hard). Cool quickly. As soon as they can be handled, peel the potatoes and shred with a course grater. Add remaining ingredients, and toss. Shape into patties, or scoop out portions with an ice cream scoop. Place in a 9 x 13 baking dish, and bake 30 to 40 minutes at 350° F, or 25 to 30 minutes at 400° F.

## TENDER OAT MUFFINS

| | | |
|---|---|---|
| 1 | c | applesauce |
| 1/3 | c | almond butter or tahini |
| 1/4 | c | (or less) honey |
| 1/2 | tsp | salt |
| 1/4 | c | water |
| 1 | | mashed banana<br>(frozen & thawed OK) |
| 1 | tsp | coriander |

Mix the above ingredients together, and add:

| | | |
|---|---|---|
| 2 | c | quick oats |
| 1/4 | c | chopped walnuts |

| | | |
|---|---|---|
| 1/2 | c | unsweetened coconut (opt.) |
| 1 | c | date pieces **or** raisins |

Spoon into paper lined muffin tins, or drop on baking sheet. Bake 30 minutes at 375º F.

*Variation:* Add 2 cups of blueberries

## SUPER WAFFLES

| | | |
|---|---|---|
| 3 | c | water |
| 1 | c | millet, uncooked |
| 1 | c | rolled oats, uncooked |
| 1/2 | c | unsweetened coconut |
| 1 | tsp | vanilla (opt.) |
| 1 | tsp | salt |

Place 1 cup of water, 1/2 cup each of the oats, millet, and the salt in the blender. Blend until very smooth (2-3 minutes). Add the remaining water alternately with remaining grain, vanilla, and coconut, and continue blending until very smooth. (If the blender is small, blend half the quantities at a time.) Pour 3/4 to 1 cup portions onto hot waffle iron, and bake 7 - 10 minutes, or until steaming stops. Yield: 6 waffles.

*Variations:* Replace coconut with 1/3 cup sun-flower or sesame seeds, **or** with 1 cup soaked soybeans plus 3 tbsp of choice of seeds.

*Note:* These waffles freeze well, and may be reheated quickly in a toaster.

## BUCKWHEAT WAFFLES

Use raw buckwheat groats in place of millet in the above recipe. Or use 1/2 cup each millet and buckwheat with the oats.

## DORIS' BREAKFAST RICE

| | | |
|---|---|---|
| 1 | c | brown rice, dextrinized |
| 5 | c | water |
| 1/2 | c | raisins |
| 1/4 | c | dates, chopped |
| 1/4 | c | dried cherries |
| 1/4 | c | dried apricots, chopped |
| 1 | tsp | salt |

Place all ingredients in a covered casserole dish. Bake at 300º F for 2 to 3 hours after it starts boiling. (This may be prepared in the evening, and the timer set to have the rice ready at breakfast time.)

## BREAKFAST GRANOLA

| | | |
|---|---|---|
| 1 | c | softened pitted dates |
| 2 | | ripe bananas |
| 1/2 | c | pineapple juice **or** water |
| 1 | tsp | salt |
| 9 | c | rolled oats |

| | | |
|---|---|---|
| 1/2 | c | raw sunflower seeds |
| 3/4 | c | chopped nuts |
| 1/2 | c | unsweetened coconut |

Blend first 4 ingredients and add to dry mixture, **or** simmer dates in juice until soft. Cool. Add mashed bananas, and stir all ingredients together. Grain should be moist, but not wet. Spread onto large baking pan. to about 1/2 inch thick. Bake at 200º F for 90 minutes, stirring every 30 minutes, until a very light brown and almost dry. Turn oven off and leave pans in oven to finish drying.

*Variations:* A combination of old fashioned and quick oats makes the most tender granola. Small amounts of wheat, rye, and/or barley flakes may be included in the mix. Sunseeds and/or nuts may be blended to a fine meal. Add choice of diced dried fruit after baking.

**RICE-SOY PANCAKES**

| | | |
|---|---|---|
| 2/3 | c | brown rice (dry measure), soaked |
| 1/2 | c | water (may use soaking water) |
| 1/2 | c | soybeans (dry measure), soaked and simmered for 5 minutes |
| 2 | | pitted dates, **or** 1 tbsp honey |
| 1 | tsp | salt |

Blend all ingredients. Bake on hot nonstick griddle.

**GARBANZO DIP**

| | | |
|---|---|---|
| 2 | c | cooked garbanzos, drained |
| 3 | tbsp | tahini, raw |
| 1/3 | c | lemon juice |
| 1-2 | | garlic cloves, minced |

Mash garbanzos with a fork to a coarse paste. Add remaining ingredients, and mix well. Serve on toast, or with raw vegetable dippers and pita whole-grain pita bread or crackers.

**PRUNE ORANGE JAM**

| | | |
|---|---|---|
| 1 | c | pitted prunes |
| 1 | c | orange juice |

Simmer prunes and juice in covered saucepan 5 minutes. Stir or mash for a chunky jam. Blend until smooth for a creamy jam.

*Variations:* Replace half of orange juice with grape juice. Add chopped nuts, crushed pineapple, or other special touches of your choice. Also, try replacing prunes with figs.

## Basic guidelines for cooking whole grains:

Grains may be cooked in slow-cookers, or double-boilers, or baked. They may be cooked overnight in a slow-cooker, or a timer may be set to start the cooker or oven, allowing ample time for cooking after the grain reaches the boiling point. Both flavor and texture are improved in whole grains that are baked for 2 hours or more. Millet and oats are full flavored, sweet, and delicious!

Different slow cookers and ovens seem to take slightly different ratios of water to grain when cooked the recommended amount of time. You may need to increase or decrease the suggested amounts of water shown in the following chart, in order to achieve the best results with your cooking method(s). (The moisture content of cooked grains, if very dry or very moist, may affect texture of grain-based butters, spreads, and similar recipes. Adjust as needed.)

| FOR 1 CUP OF DRY GRAIN | SALT 1/2 tsp/c | CUPS OF WATER | COOKING TIME AT BOILING TEMPERATURE |
|---|---|---|---|

| | | Baking Temperature: $300^0$ F |
|---|---|---|
| **Pasta, Rolled/Flaked Grains and Meals** | | |
| Pasta - 8 ounces | 4 to 5 | 30 minutes |
| Instant oats | 2 | 25 to 30 minutes |
| Quick oats | 2 | 45 minutes |
| Cornmeal | 3 to 4 | 45 to 60 minutes |
| Rolled oats, wheat, rye, etc | 2 | 90 minutes |
| **Cracked and Whole Grains** | | |
| Corn grits | $3^1/_2$ | 3 hours |
| Cracked Wheat | 3 to 4 | 2 to 3 hours |
| Brown rice | 3 to $3^1/_2$ | 2 to 3 hours |
| Millet | 4 | 2 to 3 hours |
| Barley, triticale, or wheat | 3 to 4 | 2 to 3 hours |

*Tip:* Well-cooked brown rice and millet tend to be mushy when freshly cooked or baked. The texture will become more firm, and the grains fluffy, if allowed to cool a few minutes before serving. Also, the grains are fluffy and more firm when reheated.

**Dextrinizing** grains changes starches into dextrin, which has a chemical structure in between that of starches and sugars, The process shortens the cooking time by only a few minutes, but imparts a nutty flavor and fluffier texture.

**To Dextrinize Grains:** Heat dry grain in a heavy pan over low to medium heat (or in the oven), until it is a delicate, light brown. Stir to prevent over-browning on the bottom of the pan, or around the edges.

## FIG NEWTONS

**DOUGH**

| | | |
|---|---|---|
| $^1/_2$ | c | nut butter |
| $^1/_2$ | c | whole wheat pastry flour |
| $^1/_2$ | tsp | salt (rounded) |
| $^3/_8$ | c | cool water |
| $^3/_4$ | c | oat flour (sift in) |

Stir salt and water in the nut butter. Stir in flour, and knead until well blended. Roll out, and fill with the following Filling. Bake at 375° F for about 20 minutes, on the top level of the oven. Turn bars over, and bake 15 minutes more.

**FILLING**

| | | |
|---|---|---|
| $2^1/_2$ | c | dried figs (1 lb) |
| $1^3/_4$ | c | date pieces ($^1/_2$ lb) |
| $^3/_4$ - 1 | c | hot water |

Put dried fruit through grinder. Mix in hot water until well blended. If the fruit is very dry, soak it in the water before grinding

*Variation:* Replace figs with dried apricots, or other dried fruit of choice.

## PINEAPPLE MILLET PUDDING

(A simple, light, dessert; or sauce for fruit salad)

| | | |
|---|---|---|
| 1 | 20-oz | can of pineapple (in own juice) |
| $1^1/_2$ | c | cooked millet |
| 2 | tbsp | sunflower seeds (opt.) |
| 2-3 | tbsp | frozen orange juice concentrate |
| $^1/_3$ | c | frozen pineapple juice concentrate |
| 1 | sprig | mint (opt.) |

Blend dry seeds to a fine meal. Drain juice from pineapple tidbits or chunks. Heat juice and millet to near boiling. Add to blender with the balance of ingredients. Blend smooth. Pour sauce over tidbit or chunks in a serving bowl. Add sliced ripe bananas, orange sections, or other fruit if desired.

(**Note:** The amount of millet may be increased or decreased a little to vary pudding consistency. Millet should equal amount of juice for a medium firm pudding.)

*Variation:* Replace sunflower seeds with choice of nuts or other seeds. A ripe banana may be blended in with other ingredients.

## SUN BARS

| | | |
|---|---|---|
| $2^1/_4$ | c | sunflower seeds |

| | | |
|---|---|---|
| | | **or** halved almonds |
| $1^1/_2$ | c | chopped dates |
| $^1/_4$ | c | raw tahini, **or** almond butter |
| $^1/_4$ | c | carob powder |
| 3 | tbsp | honey |
| 3 | tbsp | barley malt |
| 1 | tbsp | vanilla |
| 1 | tbsp | water |

Blend seeds in blender to make a rough meal. Mix all ingredients together. It will be quite gooey. Press the mixture evenly into an 8 x 12 pan. Bake at 350° F for 20 minutes. The bottom will brown lightly. Remove from oven and score into squares of desired size. Lift bars from pan before completely cooled.

*Note*: It is best to blend nut/seed butter, with vanilla, and malt, and other moist ingredients; then blend in dry ingredients.

The bars will be soft when removed from the pan while warm. They will harden and become chewy.when cooled to room temperature .

*Variation:* Eliminate barley malt and increase dates to 2 cups.

The carob powder may be eliminated.

*Also;* 1 cup of rolled oats, blended dry to a meal, (or 1 cup of rice flour), plus $^1/_2$ cup wheat germ, 1 to 2 tablespoons of frozen orange juice, may be added. The added grains make a more crisp bar. Bake in a 9 x 13" baking dish.

## OAT DATE BAR COOKIE

| | | |
|---|---|---|
| 2 | c | coconut, unsweetened |
| $^1/_2$ | tsp | salt |
| 1 | c | coarsely chopped walnuts |
| $^3/_4$ | c | rolled oats |
| $^3/_4$ | c | almond butter |
| 1 | c | dates, finely chopped |
| $^2/_3$ | c | whole wheat pastry flour |
| $^3/_4$ | c | honey |

Combine all ingredients and bake at 350° F until a light brown, about 15-20 minutes.

## LEMON CHIFFON PIE

| | | |
|---|---|---|
| 1 | c | raw cashews, cleaned |
| 1 | c | boiling water |

Blend smooth. Add, and continue blending

| | | |
|---|---|---|
| 1 | c | honey |
| 1 | c | hot, cooked polenta |
| 2 | tbsp | cooked winter squash |
| 1 | tsp | vanilla powder (**or** extract) |
| $^1/_2$ | tsp | lemon extract |
| 1 | tsp | grated lemon rind |
| $^1/_2$ | tsp | salt |
| 2 | tbsp | Emes gelatin |
| $^1/_2$ | c | fresh lemon juice |

When well blended, pour into a baked **Nutri-Grain Pie Crust**. (The crust is best if made with frozen pineapple juice for this pie.)

## NUTRI-GRAIN PIE CRUST

| | | |
|---|---|---|
| $1^1/_2$ | c | Nutri-grain Wheat flakes **or** similar unsweetened cereal |
| $^1/_2$ | c | unsweetened coconut, fine, **or** $^1/_3$ c finely ground almonds |
| 4-5 | tbsp | pineapple, orange, or apple concentrate |

Place Nutri-grain flakes in a plastic bag and crush lightly with rolling pin., or place in pyrex pie dish, and crush lightly with a small straight-sided jar. Stir in all ingredients, making sure the juice concentrate is mixed in evenly. Press pie crust into place in the pan, using rubber spatula, fork, or your fingers. Bake for about 7 minutes at 400° F, or until a light brown.

*Variation:* Replace coconut with walnut meal, or other nut or seed meal.

## LEMONY PINEAPPLE PIE
**(On the light side)**

| | | |
|---|---|---|
| 2 | c | cooked brown rice, hot |
| $1^1/_4$ | c | pineapple juice, hot |
| $^1/_3$ | c | almonds, blanched |
| 1 - 2 | | rings dried pineapple |
| $^1/_2$ | c | frozen pineapple juice concentrate |
| 2 | tbsp | honey **or** Sucanat (opt.) |
| 2 | tbsp | Emes gelatin |
| $^1/_4$ | c | lemon juice (fresh) |

| | | |
|---|---|---|
| 1 | tsp | lemon zest (grated lemon rind) |

Add diced dried pineapple ring to pineapple juice to soften as juice heats. Blend dry almonds to a fine meal. Add hot cooked brown rice, pineapple juice and dried pineapple, and blend until smooth. Add the rest of the ingredients, and blend to mix well. Pour into a baked **Nutri-grain pie crust**

### MILDLY NUTTY CAROB PUDDING

Cook (in a double boiler or slow cooker) 1 part millet to 4 parts water, salt, for 2 to 3 hours.

For each cup of cooked hot millet, blend with the following:

| | | |
|---|---|---|
| 1 | c | boiling water |
| $^1/_2$ | c | dates |
| 1 | tsp | vanilla |
| 2 | tbsp | carob powder |
| 1 | tbsp | almond butter **or** raw tahini **or** 2 tbsp nut or seed meal |

Blend only one cup of the hot millet with the above at a time, as it is easier on the blender. This is excellent for lunches, or poured into a crumb crust for pie. (Pudding will not be as smooth if nut or seed meal is used.)

### HOLIDAY FRUIT MOLD

| | | |
|---|---|---|
| 1 | 20 oz | can crushed pineapple, drained (save juice) |
| 4 | tbsp | Emes gelatin |
| 2 | | golden delicious apples, diced |
| 1 | 12 oz | can Tree Top Very Berry juice Concentrate |
| 2 | c | choice of berries (blue-berries, raspberries, boysen-berries, or blackberries.) |

Dissolve Emes gelatin in reserved pineapple juice, simmer 1 minute. Mix first 4 ingredients in a bowl. Add frozen berries, and 1 or 2 sliced bananas. Pour into a jello mold. Chill several hours. Serve on a platter garnished with red leaf lettuce.

### DATE-NUT TREATS

(Simple, but tasty)

Pit dates. Stuff with walnut halves or quarters, (however much the dates can cover nicely), or other nuts. Roll lightly in fine, unsweetened, macaroon coconut or nut meal.

## PUDDING CAKE WITH LEMON SAUCE

| | | |
|---|---|---|
| 1 | c | pitted dates |
| 3/4 | c | soy or nut milk |
| 1/2 | tbsp | vanilla |
| 3 1/2 | c | soft bread crumbs* |
| 1 | c | finely grated carrots |
| 1/2 | c | unsweetened, crushed pineapple, with juice |
| 1/2 | c | raisins |
| 1/3 | c | chopped walnuts |

Blend first 3 ingredients until very smooth. Combine with remaining ingredients, and mix well. Spoon lightly into a 9 x 9 pan, and bake at 300º F for 1 hour. Just before serving, pour **Lemon Sauce** over top.

*To make bread crumbs: tear bread into chunks, 2 slices at a time, and blend lightly.

## LEMON SAUCE

| | | |
|---|---|---|
| 2 | c | unsweetened pineapple juice |
| 1/4 | c | honey, **or** apple juice concentrate |
| 1/4 | c | fresh lemon juice |
| 1/3 | c | arrowroot powder, **or** cornstarch |
| 1/2 | tsp | fresh grated lemon rind |
| 1/4 | tsp | salt |

Blend all ingredients until very smooth. Heat in a saucepan, stirring constantly, until thickened.

## POLYNESIAN FRUIT BARS

| | | |
|---|---|---|
| 3 | c | rolled oats |
| 1 | c | unsweetened coconut (opt) |
| 1 | c | millet meal (Blend 1 cup dry millet to a meal) |
| 1 1/4 | c | orange juice |
| 1/2 | c | chopped nuts (pecans ) |
| 1 | tsp | salt |

Cook pineapple and dates until thickened. Mix the rest of the ingredients together . Crumble mixture should just hold together, but not be soggy. Use more or less orange juice as needed. Press half of mixture firmly into a 9 x 12 glass baking dish. Spread pineapple-date mixture evenly over the oat mixture. Top with remaining oat mixture, and bake at 350º F for 30 minutes.

Filling:

| | | |
|---|---|---|
| 1 | 20 oz | can unsweetened, crushed pineapple |
| 2 | c | chopped dates |

Simmer together until thick.

## HAYSTACK COOKIES

| | | |
|---|---|---|
| 2 | c | pitted dates |
| 1 | c | raisins |
| 3/4 | c | pineapple or orange juice |
| 3 | c | unsweetened, shredded coconut |
| 1 | c | chopped walnuts or almonds |
| 3/4 | c | barley or whole wheat pastry flour |
| 1/3 | c | rolled oats |
| 1/2 | tsp | salt |

Blend dates, raisins, and juice, until smooth. Add to remaining ingredients and mix lightly. Drop onto ungreased cookie sheets with small ice cream scoop. Bake at 325º F for 20-25 minutes, or until browned.

## MILLET RAISIN COOKIES

(Real Treats)

| | | |
|---|---|---|
| 1 - 12 oz can | | frozen apple juice concentrate |
| 1 | c | sesame seeds (or nuts of choice) |
| 1 | tbsp | vanilla |
| 1 | tsp | almond flavoring |
| 2-3 | tbsp | honey, brown sugar (optional) **or** 1/2 cup dates |

Blend the above ingredients, and add to, and mix (in a large bowl) with:

| | | |
|---|---|---|
| 4 | c | cooked millet (warm) |
| 2 | c | applesauce (may use raw apple chunks blended to a sauce) |

Add dry ingredients, and mix:

| | | |
|---|---|---|
| 3 | c | rolled oats |
| 2 | c | wheat germ |
| 2 | c | unsweetened macaroon coconut |
| 2 | c | sunflower seeds (optional) |
| 3 | c | raisins |

Use 1/4 cup scoop to form into mounds, and drop on cookie sheets. Bake at 375° F for 20 minutes or more. (Yield: 6 to 7 dozen cookies.)

## TOFU CHEESE RAREBIT

| | | |
|---|---|---|
| 1 | c | cleaned, raw cashews |
| 2 1/2 | c | water |
| 2 | c | tofu |
| 1 | tbsp | chicken-like seasoning |
| 1/2 | c | pimientos |
| 1/4 | c | yeast flakes |
| 1/4 | c | lemon juice, fresh |
| 1/3 | c | chopped onion |
| 1-2 | | garlic clove |
| 2 1/2 | tsp | salt |

Blend cashews with 1 cup of water on high speed 1 - 2 minutes, until creamy. Pour into saucepan. Blend remaining ingredients with remaining water until smooth. Pour into saucepan with blended cashews. Bring to boil; reduce heat and simmer until thick, stirring constantly. Serve over toast, pasta, or grains. Yield: 5 cups.

*Variation:* For an appetizing touch, place thinly sliced raw onion rings and/or tomato slices on toast before pouring cheese on top.

## RICE BREAD
(Yeast)

| | | |
|---|---|---|
| 1 | quart | warm water |
| 2 | tbsp | yeast |
| 1 - 2 | tbsp | sweetener |
| 1/3 | c | sesame seed meal (dry seeds blended to a meal) |
| 2 | tsp | salt |
| 6 | c | brown rice flour |
| 2 | c | oat flour (rolled oats blended dry) |

Mix sweetener with warm water, then add yeast. After this mixture gets bubbly, add the dry ingredients, and stir just enough to get evenly mixed. Put in a 9 x 13 inch baking dish. Let rise half again, about 15 - 20 minutes. Bake at 375° for about 40 minutes.

*Note:* A sheet-type yeast bread has a tendency to be dry. To moisten, steam lightly to reheat.

## "BEEF" SEASONING

| | | |
|---|---|---|
| 1/4 | c | salt |
| 1/3 | c | fine cornmeal |
| 1/3 | c | celery seed |
| 1 | tsp | garlic powder |
| 1 | tbsp | onion powder |

Combine, mixing well.

## SPANISH RICE II

| | | |
|---|---|---|
| 2 1/2 | qts | brown rice - cooked (1 3/4 c dry rice) |
| 4 1/2-5 | c | water (for cooking rice) |
| 1 1/2 | c | onions, chopped |
| 3/4 | c | green peppers, chopped |
| 1 | tbsp | salt |
| 1 | tbsp | **"Beef" Seasoning** |
| 3 | c | tomatoes, whole, broken |
| 1 | tbsp | cumin, ground |
| 4 | c | tomato puree |

Cook rice 2 to 3 hours. Stir steam onions and green peppers in small amount of water. Mix all ingredients. Pour into 9 x 13 baking dish(es). Bake at 350° F for about 1 hour, or until hot. Yield: 10 servings

## RAY'S CASHEW GRAVY

| | | |
|---|---|---|
| 2 | c | cold water |
| 1/2 | c | clean, raw cashews |
| 1 | tbsp | Bragg's liquid aminos |
| 1 | tbsp | yeast flakes |
| 1/4 | c | chopped onion |
| 1 | | garlic clove, minced |
| 1/2 - 1 | tsp | salt |

Blend until smooth. Cook on medium heat until thick, stirring constantly.

*Variation:* Add a pinch of rosemary.

## BLUEBERRY PEAR SAUCE

| | | |
|---|---|---|
| 1 | 15 oz | pears (in own juice) |
| 3 | c | blueberries |

Drain pears, reserving a little juice. Blend 1 cup of blueberries with pears. Combine with remaining blueberries. Heat in saucepan. Serve as a topping for waffles.

## "CHICKEN" SEASONING

| | | |
|---|---|---|
| 1 | c | salt |
| 1 | c | fine cornmeal |
| $^{2}/_{3}$ | c | onion, granulated |
| 1 | tbsp | garlic, granulated |
| $1^{1}/_{2}$ | tsp | thyme |
| 1 | tbsp | paprika |
| $1^{1}/_{2}$ | tsp | sweet basil, whole |
| 2 | tbsp | parsley, dry |

Combine ingredients and mix well.

## NUT ROAST

| | | |
|---|---|---|
| $2^{1}/_{2}$ | c | chopped celery |
| 3 | | medium onions, chopped |
| 5 | tbsp | water |
| $^{3}/_{4}$ | c | chopped walnut |
| $^{3}/_{4}$ | c | sunflower seeds, ground |
| 3 | c | dried bread cubes |
| $2\text{-}2^{1}/_{2}$ | c | nut or soy milk |
| $1^{1}/_{2}$ | tsp | salt |
| $1^{1}/_{4}$ | tsp | sweet basil |
| $^{1}/_{2}$ | tsp | sage |

Steam the first three ingredients with salt, basil, and sage. Combine all ingredients well, and place in loaf pan. Cover and bake 1 hour at 350° F. Serve with a country style gravy.

## TOFU SQUARES

| | | |
|---|---|---|
| 1 | lb | brick or firm tofu |

Boil tofu for 15 minutes in a covered saucepan, in enough water to cover tofu. This makes holes in the tofu for marinating seasonings.

Drain, and slice the tofu brick lengthwise, then slice crosswise into approximately half-inch slices. Place these slices in a baking dish.

| | | |
|---|---|---|
| 1 | c | chopped onions |
| 2 | c | water |
| 2 | tbsp | McKay's chicken-style seasoning |
| 2 | tbsp | Bragg's liquid aminos |
| 3 | tbsp | lemon juice |
| 1 | tbsp | honey |
| 2 | tbsp | yeast flakes |

Smother tofu squares with chopped onions. Mix remaining ingredients; pour over tofu and onions. Bake, without covering, at 300° F for about 90 minutes, or until the moisture is gone.

Tofu squares may be used as burgers; diced and put in salads, or stew; cut in strips to serve over stir-steamed vegetables; or just served as steaks with gravy.

## RICE MILK

| | | |
|---|---|---|
| 1 | c | cooked brown rice, hot |
| 2 | c | hot water |
| $^{1}/_{4}$ | tsp | salt (up to $^{1}/_{2}$ tsp) |

Blend until smooth.

## SCALLOPED POTATOES

(Try this! The finished product. is as white as dairy scalloped potatoes. Tasty too.)

| | | |
|---|---|---|
| 3-4 | large | potatoes, thinly sliced, to fill 9 x 13 baking dish |
| 1 | med | onion, thinly sliced |
| $1^{1}/_{2}$ | tsp | salt (up to 2 teaspoons) |
| 2 | | Recipes of **Rice Milk** |

Layer the sliced potatoes and onion slices alternately in a $1^{1}/_{2}$ quart casserole dish. Sprinkle salt on each set of layers. Blend the cooked brown rice with 1 cup of the hot water; add seasonings and the other cup of water and blend briefly. Pour rice milk over the potato and onion slices. Milk should cover potatoes. Bake at 350° F. for 60 minutes, or at 450° F for 30 minutes which will make a brown crust.

*Variation:* $^{1}/_{4}$ teaspoon thyme or other herb seasoning may be added, but dried herbs may gray the finished product.

## GARBANZO-SOY-OAT PATTIES

| | | |
|---|---|---|
| 2 | c | soaked garbanzos |
| 1 | c | soaked soybeans |
| $1^{1}/_{2}$ | c | water |
| $^{1}/_{3}$ | c | chopped Brazil nuts (**or** choice of nuts/seeds) |
| 2 | tsp | salt |
| 1 | | small onion |
| 1 | | clove garlic |
| 1 | c | rolled oats |

Combine all ingredients except rolled oats in blender; blend fine. Place in bowl with rolled oats. Mix well, and let stand 10 minutes for oats to absorb moisture. Form into patties and place on lightly oiled cookie sheet. Bake at 350° for 15 minutes; turn and bake another 15

minutes. Serve with tomato sauce. Yield: 4 2-patty servings.

*Variations:* Replace water with tomato juice.

May be baked as a sheet casserole in a 9 x 13 baking dish 50 to 60 minutes at 325° F, or until lightly browned. Cut in squares to serve.

## MAZIDRA

| | | |
|---|---|---|
| 3 | c | water |
| 1 | c | lentils |
| 1 | | onion, chopped |
| 1 | | clove garlic, minced |
| 1 | | bay leaf |
| 1/8 | tsp | thyme (opt) |
| | | salt to taste |
| | | cooked brown rice |

Bring lentils and water to a boil, then reduce heat and simmer for 35-45 minutes, or until lentils are nearly tender. Add seasonings, and simmer a few minutes to finish cooking lentils, and the added seasonings. The mixture should be thick. Remove bay leaf. Place lentils and rice in separate serving bowls; also, the following ingredients in separate serving bowls. Each person may make "haystack" to suite individual taste.

Shredded lettuce
Diced tomatoes
Chopped green onions
Sliced olives
Diced avocado

Haystacks may be topped with tomato sauce, guacamole, **"Sour Cream"** or lemon juice.

## PASTA E FAGIOL

| | | |
|---|---|---|
| 8 | oz | sesame macaroni **or** soy noodles **or** eggless whole grain pasta |
| 2 | 16-oz | cans, tomatoes |
| 1 | c | tomato sauce |
| 1 | | medium onion, chopped |
| 1 | | clove garlic, minced |
| 1 | | small can of sliced olives |
| 2 | 15-oz | cans, red kidney beans, drained |
| 1 | | bay leaf |
| 1 | tsp | salt |
| 1/2 | tsp | each: oregano and basil |
| 1 | tbsp | chopped parsley |

Cook pasta. Simmer remaining ingredients about 20 minutes. Remove bay leaf from sauce mixture and combine with noodles in a 3-quart casserole dish. Bake at 350° F for 20 minutes. Yield: 6 servings.

*Variation:* The sauce may also be served over cooked brown rice.

## GOURMET MILLET BALLS

| | | |
|---|---|---|
| 2/3 | c | raw soybeans |
| 3 | c | water |

Soak beans overnight, or about 8 hours.

| | | |
|---|---|---|
| 2 | c | soaked soybeans, drained |
| 1/2 | c | water |
| 1 | | medium onion |

Blend until smooth, and combine with:

| | | |
|---|---|---|
| 1 1/2 | c | cooked millet |
| 1/4 | c | sunflower seeds |
| 1 | c | seasoned bread crumbs |
| 1/2 | c | slivered almonds |
| 1/2 | tsp | salt |

Let mixture stand 5-10 minutes. Form into balls. Roll in 1/2 cup seasoned bread crumbs. Bake on lightly sprayed cookie sheet, or line pan with pan lining paper. Bake at 350° F for 40 minutes. Serve with tomato sauce if desired. Yield: 10 servings.

**Seasoned Bread Crumbs:** Break 2 to 3 slices of whole-grain bread into chunks, and blend dry briefly. Add 1/4 tsp salt, 1 tsp of chicken style seasoning, and 1/4 tsp each of thyme and sage.

Cook 1/2 cup millet in 2 cups of water with 1/2 teaspoon salt until water is absorbed. (The grain will finish cooking in the oven.)

*In a hurry?* Pat lightly into a baking dish, Top with crumbs, if desired. Bake as for balls. about 45-50 minutes. Cut in squares to serve.

## ZESTY TOMATO RELISH

| | | |
|---|---|---|
| 4 | c | chopped tomatoes, packed |
| 1 | tsp | celery seed |
| 1 | | large onion, minced |
| 2 | tbsp | fresh lemon juice |
| 1 | tsp | salt |
| 3 - 4 | | dates, chopped (opt.) |
| 1 | tsp | sweet basil |

Combine in saucepan, and simmer about 30 minutes. Yield: about 4 cups.

*Variation:* For a delicious main dish, add mung bean sprouts and serve over brown rice. Top with toasted almond slices.

## STROGANOFF

**The "Mighty Mac" Burger**

| | | |
|---|---|---|
| 1 | c | soaked or cooked garbanzos (scant 1/2 cup dry) |
| 1 1/2 | c | water |
| 2 | c | rolled oats |
| 1/3 | c | walnuts, chopped |
| 1 | | medium onion, chopped |
| 2 | tbsp | Bragg's Liquid aminos **or** other unfermented soy sauce |
| 1 | tsp | sage |
| 1 | tsp | salt |

Blend first two ingredients until smooth. Add to remaining ingredients in a bowl and mix well. Drop from 1/3 cup measure to form patties on non-stick or prepared baking sheet. Bake 25 to 30 minutes at 350° F.

Burgers may be served on whole wheat burger buns with all the trimmings: choice of no-oil mayonnaise, lettuce, tomatoes, onions, etc., or they may be served with potatoes and gravy, or in this **Stroganoff** recipe.

GRAVY:

| | | |
|---|---|---|
| 3 | c | water |
| 2 | tbsp | Bragg's liquid aminos **or** other unfermented soy sauce |
| 2 | tsp | arrowroot powder or cornstarch |
| 1 | c | clean raw cashews |
| 1/4 | c | chopped onion |
| 1 | tbsp | lemon juice |
| 1/4 | tsp | honey |
| 1/4 | tsp | salt |

Blend all ingredients, using only 1 cup of the water, until smooth. Add the other 2 cups of water and blend briefly. Cook over medium heat until thick, stirring constantly. Add more water for thinner consistency if needed.

ADD TO THE GRAVY:

| | | |
|---|---|---|
| 2 | c | **"Mighty Mac'** chunks |
| 1/2 | c | stir-steamed chopped onion |
| 1-2 | tbsp | finely chopped parsley |

Heat through. Serve over well cooked brown rice or pasta.

*Variation:* Replace "**Mighty Mac"** with **Simple Oat Burger.**

## BAKED BROWN RICE

| | | |
|---|---|---|
| 1 | c | brown rice |
| 3 1/2 | c | boiling water |
| 1/2 | tsp | salt |

Dextrinize rice in heavy skillet over low heat, stirring occasionally, until it is a very light brown. Bring water to a boil. Put rice, water, and salt in a covered baking dish, and bake 2 to 3 hours at 300° F. Yields about 4 cups. Try placing the casserole on a shinny cookie sheet, or over a strip of aluminum foil. (See 1-Rx 4 for more information on cooking grains.)

## MARINATED VEGETABLES

(An excellent make-ahead salad for a crowd)

| | | |
|---|---|---|
| 1/2 | c | lemon juice |
| 1 | c | water |
| 1/4 | c | chopped chives **or** green onions **or** 1 tsp onion powder |
| 1 | tsp | oregano |
| 1 | tsp | dill weed |
| 4 | tbsp | frozen orange concentrate **or** honey |
| 2 | tsp | Vegesal **or** sea salt |
| 1 | | clove of garlic, minced **or** 1/2 tsp garlic powder |
| 1 | tsp | sweet basil |
| 6 | c | raw vegetables |

Mix all ingredients together, except the vegetables. Pour the mixture over the vegetable pieces, and marinate for at least 24 hours, stirring occasionally to marinate all pieces well. This will keep in the refrigerator for about a week, unless consumed sooner! A very attractive and appealing combination can be

made with broccoli, cauliflower, cherry tomatoes and black olives.

## APRICOT JAM

| | | |
|---|---|---|
| 1 | c | dried apricots |
| $1^1/_4$ | c | pitted prunes **or** |
| | | 1 cup pitted dates |
| $^1/_2$ | c | crushed pineapple (in own juice) |

Simmer first two ingredients in water to cover, until soft. Add crushed unsweetened pineapple, and blend. (This may just be stirred to mix well, and used as a chunky spread.)

*Variation:* Replace water with pineapple juice.

## GOURMET SNAP BEANS

| | | |
|---|---|---|
| 2 | lbs | fresh green beans |
| $^1/_2$ | c | boiling water |
| 2 | tsp | lemon juice |
| 2 | tbsp | minced fresh parsley |
| 1 | tsp | salt |
| | | dash of dill weed (optional) |
| 1-2 | tsp | tahini, raw (optional) |

Wash, trim, and cut green beans as desired. Simmer until tender crisp, about 10 to 15 minutes. Add salt and seasonings. Stir tahini into a tablespoon or two of the hot liquid to make a cream, and pour it over the beans. Toss lightly. Serve. Yield: 8 servings

## SAVORY GREEN BEANS

| | | |
|---|---|---|
| 1 | lb | fresh green beans |
| $^1/_3$ | c | boiling water |
| $^3/_4$ | c | onion, minced |
| $^1/_4$ | c | celery, minced |
| 1 | | garlic clove, minced |
| $^1/_4$ | c | parsley, minced |
| $^1/_4$ | tsp | rosemary leaves |
| $^1/_4$ | tsp | sweet basil leaves |
| $^3/_4$ | tsp | salt |

Wash, trim, and cut green beans as desired. Simmer until tender crisp, about 10 to 15 minutes, adding onion, garlic and salt during the last 4 or 5 minutes. Stir in minced celery and herb seasoning. Toss lightly. Serve. Yield: 4 servings.

*Variation:* Top with a sprinkling of pine nuts or chopped walnuts.

## MILLET LOAF

| | | |
|---|---|---|
| 3 | c | cooked millet |
| 2 | c | bread crumbs |
| 2 | c | onions, chopped |
| $1^1/_2$ | c | celery, chopped |
| 2 | tbsp | chicken-like seasoning |
| 1 | c | cleans, raw cashews |
| 2 | c | water |
| $^1/_4$ | c | Bragg's liquid aminos |
| 1 | tsp | salt |
| 1-2 | tsp | sage |

Combine first 4 ingredients in a bowl. Blend remaining ingredients; combine with ingredients in the bowl. Mix well, and put into a 9 x 13 baking dish. Bake 30 minutes at $350^0$ F.

## OAT CRISPS

| | | |
|---|---|---|
| 2 | c | very warm water |
| 1 | tbsp | active dry yeast |
| 1 | tbsp | honey |
| 1 | tbsp | molasses |
| 3 | c | oats |
| 2 | c | whole wheat flour |
| $^3/_4$ | tsp | salt |

Stir honey and molasses into the water; add yeast and stir to moisten. Let stand 5 minutes. Blend oats to a fine flour ($1^1/_2$ cups at a time). Combine oat flour and yeast mixture in a large bowl. Add 1 cup of the whole wheat flour and salt. Beat vigorously 150 strokes. Stir in remaining flour. Drop by $^1/_4$ cup portions onto sprayed cookie sheets. Let rise 20 to 30 minutes. Bake 20 to 30 minutes at $400^0$ F. Very good when split and toasted.

*Variation:* Substitute 8 - 10 dates, blended in part of the water, for honey and molasses.

## FRESH TOMATO SAUCE WITH HERBS

| | | |
|---|---|---|
| 2 | lbs | firm ripe tomatoes, |
| | | peeled and diced |
| $^1/_2$ | c | sliced ripe olives |
| 1 | tsp | dried oregano |
| 2-4 | tbsp | chopped Italian parsley |
| 2 | tbsp | chopped fresh basil |
| 1-2 | | garlic clove, minced |
| | | salt to taste |

| | | |
|---|---|---|
| 1 | lb | whole grain spaghetti, cooked |

Combine all ingredients, except the pasta, in a medium bowl. Marinate at room temperature for about an hour. Drain hot cooked pasta, and place in a heated serving dish. Add the sauce and toss. Serve with a cheese-type topping if desired.

### WHITE SAUCE/GRAVY

| | | |
|---|---|---|
| 2 | c | hot water |
| $^1/_2$ | c | clean raw cashews |
| 2 | tsp | onion powder |
| 2 | tbsp | arrowroot powder |
| $^1/_2$ | tsp | salt |

Blend until smooth. Pour into saucepan and bring to a boil. Add 2 tbsp yeast flakes and/or Bragg's liquid aminos (reducing salt) for gravy. The following butter and cheese-type spreads keep about a week if well refrigerated. Place them on the table at serving time, and replace them in the refrigerator as soon as possible. Freezing changes the texture. If frozen, they may be used in gravies and sauces, or used as spreads if heated and blended again.

It is not difficult to use them within a week as they have many uses, such as: sauces for vegetables; toppings for baked or mashed potatoes; additions to pasta sauces; as salad dressings with the addition of more lemon, lime, and/or orange juice and thinned to desired consistency; or heated and thinned to consistency of gravy, adding chopped parsley or other greens, chopped onion and minced garlic, or other preferred seasonings. They may be thinned with tomato or carrot juice, soy or nut milk.

For small families you may wish to make only half a recipe each of a butter-type and cheese-type spread. Or, make one recipe, such as **Best Like Butter** for both uses, Pour $^1/_2$ of the finished recipe into a serving dish for the spread. Then add a tablespoon or two more of the nuts/seeds, and half of the quantities of onion, garlic, pimientos, and yeast flakes called for in the **Best Chez** recipe, and blend briefly into the remaining **Best Like Butter** recipe. **PRESTO!** Two products from one recipe!

Other grains, such as brown rice, millet, or barley, may be used to replace the polenta. The finished product will be a lighter color. Other nuts or seeds may be used to replace the almonds. Sunflower seeds tend to gray the finished product, and walnuts will turn it brown if heated.

### BEST-LIKE BUTTER

| | | |
|---|---|---|
| $1^1/_2$ | c | hot cooked Polenta |
| 1 | c | boiling water |
| $^1/_4$ | c | blanched almonds |
| $^1/_4$ | c | cooked squash (winter) |
| 1 | tbsp | lemon juice |
| $1^1/_2$ | tsp | salt |
| 1 | tbsp | food yeast (opt) |
| $^1/_8$ | tsp | marjoram (or 3 or 4 fresh leaves) **or** rosemary |

Combine all ingredients and whiz 2 to 3 minutes. Place in serving container and chill. If all ingredients are hot the mixture should blend with little help from a spatula.

### BEST CHEZ SAUCE

| | | |
|---|---|---|
| $1^1/_2$ | c | hot cooked Polenta |
| $1^1/_2$ | c | water, hot |
| $^1/_2$ | c | blanched almonds **or** clean, raw cashews |
| 3 | tbsp | yeast flakes |
| 2 | tsp | salt |
| 2-3 | tbsp | chopped onion |
| 1 | | clove garlic, minced |
| 1 | 4-oz | jar of pimentos |
| 1 | tbsp | lemon juice (or more) |

Blend all ingredients until smooth.

*Variations:* Replace onion and garlic with 2 teaspoons of onion powder or flakes, and 1 teaspoon of garlic powder. Replace polenta with cooked brown rice. Replace pimentos with red (ripe) sweet pepper.

*Note:* Onion and bell pepper may be blanched in the hot water if preferred.

### BEST CHEZ SPREAD

The same as above, except reduce the water to 1 to $1^1/_4$ cups, to make the spread more firm, or increase amount of polenta slightly.

### POLENTA

**Polenta** is a deep yellow, coarsely ground corn. Cook 1 cup polenta in 4 cups of water in a double boiler or slow cooker 1 to 1 1/2 hours.

### TOFU MAYONNAISE

| | | |
|---|---|---|
| 1/4 | c | sunflower seeds (**or** Brazil nuts, **or** clean raw cashews) |
| 1 | 10.5 oz | silken tofu, extra firm |
| 1/2 | c | water, more or less for desired consistency |
| 2-3 | tbsp | lemon juice |
| 1/2 | tsp | salt |
| 1/4 | tsp | onion powder |
| 1/4 | tsp | garlic powder |

Blend all ingredients until smooth. This will keep about a week in the refrigerator.

*Variation:* Omit onion and garlic powders, and replace water with pineapple juice, for a fruit salad dressing.

### GARLIC BUTTER

| | | |
|---|---|---|
| 1 | c | water, hot |
| 1 | c | cooked polenta or millet (hot) |
| 1/2 | c | clean, raw cashews |
| 4 | | garlic cloves |
| 1 | tbsp | yeast flakes |
| 1/4 | c | chopped onion **or** 1 tbsp onion flakes |
| 2 | tsp | salt |
| 4 | tsp | lemon juice |
| 1/2 | c | sesame seeds |
| 1/2 | tsp | marjoram |

Blend all but the last three ingredients until smooth, about 2 minutes. Briefly whiz in sesame seeds and herbs. Spread on bread slices and broil.

### QUICK GARLIC BUTTER

| | | |
|---|---|---|
| 1/2 | c | tahini, raw |
| 1/4 | c | water |
| 1 | | clove garlic, minced very fine or tsp garlic powder |
| | | salt to taste (1/2 to 1 tsp) |

Stir smooth with fork. Spread on bread and broil, or use cold as a spread.

### EARLY MORNING POTATO PANCAKES

| | | |
|---|---|---|
| 5-7 | | potatoes (may use leftovers) |
| 1/3 | c | **Rice Milk** (may need slightly more) |
| 2-3 | tbsp | minced onion **or** 1 tsp onion powder |
| 1/4 | c | chopped parsley |

Steam potatoes until tender. Mash smooth with rice milk and potato water as needed. Potatoes should be moist to form into patties. Place on lightly sprayed baking sheet. Bake at 400° F, 20 to 40 minutes, turning once. Pancakes should form a brown crust. Serve with fresh parsley and tomatoes.

### GOLDEN GRAVY

| | | |
|---|---|---|
| 1 | c | yellow split peas |
| 3 | c | water |
| 1/2 | tsp | salt |

Simmer split peas in the water until tender, 30 to 60 minutes. Add salt and choice of seasoning (touch of rosemary, marjoram, sage, or dill). Stir smooth, or blend briefly for a smoother texture. Add more water or tomato juice, if needed, for desired consistency.

Good topping for brown rice or baked potato.

### "SOUR CREAM"

| | | |
|---|---|---|
| 1 | c | cooked brown rice, hot |
| 1/2 | c | cashews, washed (**or** sunseeds) |
| 1/3 | c | lemon juice |
| 1 | tsp | salt |
| 1 | | clove garlic<br>**or** 1/2 tsp garlic powder |
| 2-3 | tbsp | onion **or** 1 tsp onion powder |
| 1 1/3 | c | water, hot |

Whiz all ingredients together in blender till smooth. Chill and serve.

*Note:* If very hot water is used, the cashews will thicken the cream.

### SUNNY SPREAD

| | | |
|---|---|---|
| 1 | c | plus 2 tbsp boiling water |
| 1 1/2 | c | cooked polenta, hot |
| 1/4 | c | sunflower seeds |
| 1 | tbsp | lemon juice |
| 1 1/2 | tsp | salt |
| 1/4 | c | carrots (cooked) |
| 1 | tbsp | macaroon coconut (unsweetened) |
| 1/8 | tsp | rosemary |

Cooked polenta must be hot. Combine all ingredients in blender. Whiz 2 to 3 minutes. Pour into serving dish(es). Chill to set.

*Variations:* Cooked brown rice or millet may be used in the same proportions. Also, other seeds/nuts may be used, such as sesame, almonds, or cashews.

### GARBANZO GRAVY

| | | |
|---|---|---|
| 1 | c | cooked garbanzos |
| 1 1/2 | c | garbanzo liquid and water |
| 2 | tbsp | clean, raw cashews |
| 2 | tbsp | onion flakes (**or** 1 tbsp powder) |

Blend until smooth. Add 1 tbsp Bragg's liquid aminos if desired, and more liquid if needed. Heat , serve.

### DILL DIP

| | | |
|---|---|---|
| 1/4 | c | sunseeds |
| 1/4 | c | water |
| 3-4 | tbsp | lemon juice, fresh |
| 1 | | clove garlic, minced fine<br>**or** 1/4 tsp garlic powder |
| 2 | tbsp | onion, minced fine<br>**or** 1 tsp onion powder |
| 1 | tsp | celery salt |
| 1 | 10-oz | tofu |

Blend above ingredients until smooth. If necessary, add more water to make desired consistency. Stir in:

| | | |
|---|---|---|
| 1 | tsp | dill weed. |

This will keep about a week when refrigerated.

### PECAN LOAF

(Excellent for sandwiches too)

| | | |
|---|---|---|
| 3 | c | soft bread crumbs |
| 1 1/2 | c | pecan meal |
| 1 | c | chopped onion |
| 2 | c | tomato juice or sauce |
| 1 | tsp | onion powder |
| 1 - 2 | | garlic cloves, minced |
| 3/4 | tsp | salt |
| | | homemade **Ketchup** |

Stir-steam onion and garlic in small amount of the tomato juice. Combine all ingredients except the ketchup, and mix well. Bake 45 to 50 minutes at 350° F in a covered casserole. Uncover, and spread ketchup over top of loaf, and bake an additional 10 minutes. Serve with extra ketchup.

If you are fortunate to have some of the loaf left over, serve in sandwiches with sprouts, onion, and tomato slices, and homemade mustard.

### SCALLOPED APPLES

| | | |
|---|---|---|
| 2 | c | soft bread crumbs (whole grain is best) |
| 3 - 4 | c | apples, chopped |

1/4 c nuts, chopped
1/4 tsp grated lemon rind, fresh (opt.)
1 tbsp ground coriander (opt.)
1/2 c dates, chopped
1/2 c water

Simmer dates in water until soft. Stir in flavorings. Mix with remaining ingredients. Place in a baking dish, and bake at 350° F for 30 minutes.

### APPLE-RICE BETTY

2 c well cooked brown rice
1/3 c raisins
**or** 1/4 cup chopped dates
1 tbsp lemon juice
1/8 tsp grated lemon rind, fresh (Opt.)
1/4 c chopped nuts
2 large apples, diced
2 - 3 tbsp frozen apple juice concentrate
3/4 c water

Simmer apples in water until tender. Add remaining ingredients and steam until heated through. Serve with **Blueberry Pear Sauce.**

### MOCK FISH PATTIE

1 1# brick of tofu, drained , mashed

### SPROUTED WHEAT TABOULI

2 c sprouted wheat berries
(Leaf blade as long as grain)
1 small cucumber, diced (1/2 cup)
1 green pepper, seeded and diced
1 tomato, diced
1 scallion, diced, **or**
1/4 cup sliced green onion
1 c chopped parsley
1/4 c celery, diced (with leaves)
2-4 tbsp lemon juice
1 c cooked garbanzos **or**
other legume (optional)

Combine all ingredients, and toss to mix. Cover and refrigerate overnight before serving. This salad will keep a few days.

### KETCHUP II

1 1/2 c tomato puree
3 tbsp lemon juice

1/3 c finely chopped onions
2 c alfalfa sprouts
1/4 c tahini, raw
1 tbsp dried parsley
1/4 c sunflower seeds, finely ground
1 tsp Vegesal
1/2 tsp each, garlic powder, sage, and rosemary
1/4 tsp onion powder

Mix all ingredients well. Form into 6 large patties. Bake on sprayed baking sheets at 350° F 20 minutes each side. (Turn patties carefully as they are delicate.)

These are delicious with home made mayonnaise or tartar sauce.

### OKARA BREAD

4 c soybean residue (from soy milk)
1 c rolled oats
3 c whole wheat flour
1/2 c gluten flour
2 - 3 tsp salt

Mix well. Spread crumbly mixture onto two cookie sheets. Bake at 350° F until brown.

*Note:* This is also a very good dog and cat food.

6 tbsp crushed pineapple (own juice)
1 1/2 tsp onion powder
1/4 tsp garlic powder
1/4 tsp salt

Blend crushed pineapple. Combine with other ingredients. Chill and serve.

### CORN AND SQUASH CASSEROLE

(This is excellent. Try it soon)

2 c fresh corn, cut from cob
(or whole kernel canned/frozen)
2 c coarsely grated winter squash
1/2 c water
1/2 c chopped onion
1/2 c chopped green and/or red pepper
1/4 tsp each, oregano and sweet basil,
or seasonings of your choice
1 tsp salt
1/2 c nut or soy cream,
**or Best Chez Sauce**

Steam vegetables in the water until tender. Add seasonings, milk or spread. Reheat on stove top, or turn into a casserole dish and heat a few minutes in the oven.

If you are using fresh corn that is a bit starchy it may take more water. The liquid should be nearly absorbed when vegetables are tender.

Many who dislike squash have relished this.

## SWEET AND SOUR CARROTS

| | | |
|---|---|---|
| 2 | tbsp | liquid from olives |
| 1/4 | tsp | rosemary |
| 1/4 | tsp | thyme |
| 1/2 | lb | carrots (4 medium) scrubbed and sliced into 1/4 inch rounds |
| 3/4 | c | carrot juice |
| 1/2 | tsp | salt |
| 1/4 | c | chopped fresh parsley |
| 3 | | garlic cloves, minced (optional) |

Heat olive liquid with dried herbs in a small saucepan. Add carrots, stirring to coat with herb mixture. Add carrot juice, lemon juice, and salt, and bring to boil. Lower heat and cook slowly, uncovered, until carrots are tender, about 20 minutes. Just enough liquid should be left to lightly coat the carrots. Remove from heat. Stir in parsley and minced garlic.
Yield: 2 side-dish servings.

## ONION AND TOMATO QUICHE

**Crust:**

| | | |
|---|---|---|
| 1 | c | millet meal |
| 1 | c | pecans or walnuts |
| 1/2 | tsp | salt |

Blend dry millet to a fine meal. Remove from blender. Blend nuts and salt until buttery. Add millet meal and blend. Transfer to a pie dish, and add enough water to bind together. Press into the pie dish.

**Filling:**

| | | |
|---|---|---|
| 2 | | large onions, thinly sliced |
| 2 | | large tomatoes, sliced |
| 1 1/2 | c | soy or nut milk |
| 2 1/2 | tbsp | arrowroot (or cornstarch) |
| 1 | tsp | oregano |
| 1 | tsp | sweet basil |
| 1 - 2 | | garlic cloves, minced |
| 1/2 | tsp | salt |

Stir-steam onions in about 2 tablespoons of water until just tender. Arrange onions in crust, and top with tomato slices. Whisk soy milk, arrowroot powder, and herbs together, and pour over onion and tomato. Sprinkle with chopped parsley to garnish. Bake 40 minutes at $375^0$ F, or until firm and golden. Serve with steamed vegetables or salad.

## SPANISH RICE

| | | |
|---|---|---|
| 4 | c | well-cooked brown rice |
| 1/2 | c | blended stewed tomatoes (may be strained, **or** juice) |
| 1 | | bay leaf |
| 1 | | small onion, minced |
| 1 | | clove garlic, whole |
| 1/4 | tsp | cumin |
| 1/4 | tsp | paprika |
| 1/4 | tsp | onion powder |
| 1 | tsp | chicken-like seasoning |

Bring liquids and seasonings to a boil, and add rice. Simmer on low heat for a few minutes. Remove bay leaf and serve.

## TAMALE PIE

| | | |
|---|---|---|
| 2 | c | whole kernel corn (16-oz can with liquid) |
| 2 1/2 | c | canned tomatoes (or fresh) |
| 1/4 | c | tomato paste (opt.) |
| 1 | | large onion, finely chopped |
| 1 | 6-oz | can pitted olives, sliced or whole |
| 1 1/2 | t | salt |
| 1 | | large clove garlic, minced |
| 1 | c | soaked garbanzos |
| 1/4 | c | sunflower seeds |
| 1/2 | c | water or tomato juice |
| 1 1/4 | c | cornmeal |
| 1/4 | tsp | each, oregano and sweet basil **or** 1/2 tsp oregano |
| 2 | tsp | paprika |

Stir-steam onion and garlic in 2 to 4 tablespoons of olive liquid to wilt. Blend soaked garbanzos and water until smooth. Stir all ingredients together and pour into a large covered casserole dish. Bake, covered, at $325^o$ F for about 60 minutes. Uncover, and bake an additional 15 to 20 minutes, or until firm.

## PITA BREAD CHIPS

Whole wheat pita bread, made without oil

Separate top and bottom layer of pita bread if desired. Cut into pie-shaped wedges. Place on a cookie sheet. Bake at 250° F for about 10 minutes, or until dry and crisp.

## OAT CRACKERS

| | | |
|---|---|---|
| 1 | c | rolled oats |
| 1 | tsp | salt |
| 1 | c | water |
| Sesame seeds | | |

Blend all ingredients until smooth. Pour onto cookie sheet, and sprinkle with sesame seeds. Bake at 400° F for 10 minutes. Score for crackers. Continue baking at 350° F until very light brown. Remove crackers from outer edges as they brown to prevent burning.

## CORN AND BEAN PIE

Blend 1/2 cup of sesame seeds to a fine meal. Use 2 tablespoons of the meal in the filing; the balance in the crust.

**Filing:**

| | | |
|---|---|---|
| 3 | c | cooked kidney beans |
| 1 | tsp | salt |
| 1/2 | c | celery, chopped |
| 1 | | green pepper, chopped |
| 1/2 | c | tomatoes, stewed (or fresh) cut in pieces |
| 1 | c | corn kernels (fresh, canned, or frozen) |
| 1 | | onion, chopped |
| 2 | tbsp | sesame seed meal |
| 1/2 | tsp | cumin seeds |
| 1/2 | tsp | oregano |
| 1/2 | c | sliced black olives |

Stir-steam vegetables in 2 to 4 tablespoons of liquid from olives, until wilted (onion should be transparent). Add seasonings, kidney beans, reserved liquid, and 2 tablespoons of the sesame seed meal. Turn into the corn meal shell. Bake in a 350° oven 30 minutes. Top with olives, and a cheese-type sauce such as **Best Chez Spread,** if desired; bake 10 minutes more.

**Shell:**

| | | |
|---|---|---|
| 1 1/2 | c | cornmeal |
| 3/4 | c | hot water |
| 1/3 | c | sesame seed meal |
| 1/2 | tsp | salt |

Mix together, and press into the bottom and sides of a 9 x 13 baking dish.

## AMERICAN CHEESE

| | | |
|---|---|---|
| 1 | c | water |
| 1/3 | c | plus 1 rounded tbsp Emes unflavored gelatin |
| 1 1/4 | c | boiling water |
| 1 1/2 | c | raw cashews |
| 1/4 | c | yeast flakes |
| 1 | tbsp | salt |
| 2 | tbsp | onion |
| 1 | | clove garlic (small) |
| 1/4 | c | lemon juice (fresh is best) |
| 1 | | pimento, **or** 1/2 large, ripe,sweet pepper, **or** about 2 tsp paprika |

Soak gelatin in the 1 cup of water in liquefier while assembling remaining ingredients. Pour boiling water over soaked gelatin and whiz briefly to dissolve. Cool slightly. Add cashews and liquefy thoroughly. Add remaining ingredients. Liquefy until mixture is the consistency of a creamy sauce, with no bits of pimiento visible. Pour into a large quart mold, and cool slightly. Cover before refrigerating. Refrigerate overnight before serving. After firming in the refrigerator, this cheese may be frozen until needed. Makes about 1 quart.

This “cheese” has the consistency of dairy American cheese, and can be thinly sliced.

***Note:*** Use half the recipe for small blenders.

## GUACAMOLE

| | | |
|---|---|---|
| 2 | | ripe avocados |
| 2 | tbsp | chopped tomato |
| 1 | tbsp | fresh lemon juice |
| 2 | tsp | finely chopped onion |

| | | |
|---|---|---|
| 1/2 | tsp | salt |
| 1 | | small clove garlic, minced **or** garlic salt to taste |

Blend or mash avocados until smooth. Stir in remaining ingredients. Keep refrigerated in an airtight container. Use within 24 hours.

*Tip:* When storing in refrigerator, cover surface of Guacamole with a thin layer of lemon juice to prevent browning. Pour off or stir in when ready to serve.

*Variation:* For salad dressing, add tomato or vegetable juice to make desired consistency

## REFRIED BEANS

| | | |
|---|---|---|
| 2 | c | cooked pinto beans |
| 1 | can | tomato sauce |
| 1 | | small onion, chopped |
| 1 | | clove garlic, minced |
| 1/2 | tsp | oregano |
| 1/2 | tsp | salt |
| 1/4 | tsp | cumin |
| | | cilantro, to taste (opt) |

Stir-steam onion until tender. Blend (or mash) beans with tomato sauce until mostly smooth. Stir ingredients together. Bake in a casserole dish 20 to 30 minutes at 325° F. or simmer in a skillet, stirring frequently

## SALSA RANCHERA

| | | |
|---|---|---|
| 1 | | onion, chopped |
| 3/4 | c | chopped green pepper |
| 1/4 | c | chopped fresh parsley |
| 2 | tbsp | fresh cilantro, **or** 1 tsp dried |
| 2 | | cloves garlic, minced |
| 1/4 | tsp | ground cumin |
| 1/4 | tsp | ground oregano |
| 4 | c | fresh tomatoes, chopped |
| 1-2 | tbsp | fresh lemon juice |
| 1/4 | tsp | fresh grated lemon rind |
| | | salt to taste |

Combine all ingredients and mix well. Best if allowed to stand, refrigerated, for a few hours, to let flavors blend. Keep refrigerated in an airtight container.

*Variations:* (1) add 2 to 3 tbsp of tomato paste.

## BEAN SPREAD

| | | |
|---|---|---|
| 2 | c | cooked beans or garbanzos |
| 1/2 | c | finely chopped celery |
| 1/2 | c | finely chopped sweet pepper |
| 1/2 | c | chopped olives |
| 1/2 | c | no-oil mayonnaise **or** cheese type spread **or** 3 tbsp tahini + 2 tbsp lemon juice |

Mash beans. Stir in other ingredients. Chill and serve. This may be blended for a smoother texture. Add a touch of herbs if desired.

## POPPY SEED DRESSING

| | | |
|---|---|---|
| 3 | tbsp | orange juice |
| 3 | tbsp | lemon juice |
| 2 | tbsp | honey **or** 4 to 5 dates |
| 1/2 | c | clean, raw cashews |
| 1/2 | tsp | paprika |
| 1/2 | tsp | celery salt |
| | | grated onion to taste |
| | | salt to taste |
| 1 | tbsp | poppy seeds |

Blend all ingredients except poppy seeds, adding a small amount of water if needed. Stir in poppy seeds.

## ORANGE ‘N ONION WITH GREENS SALAD

| | | |
|---|---|---|
| 1 | | small onion, finely chopped |
| 1 | | orange, sectioned, |
| 2 | tbsp | lemon juice |
| 1/4 | tsp | lemon zest |
| 1 | tbsp | frozen orange juice (opt.) |
| 1/4 | tsp | tarragon **or** dill weed |
| 1 | | sliced cucumber |
| 2 | tbsp | scallions, minced |
| | | salt to taste |
| 1 | | sliced avocado (optional) |
| 4 | c | salad greens |

Cut orange sections into bite-sized pieces. Marinate the onion, orange, and salad dressing ingredients in a salad bowl for about an hour. Break the salad greens into the bowl, and add the rest of the ingredients. Toss all together just before serving.

## CAROB FUDGE FROSTING

Heat in sauce pan until thick:

| | | |
|---|---|---|
| 1/2 | c | water |
| 1/3 | c | carob powder |

Remove from heat. With electric mixer cream above mixture together with the following:

| | | |
|---|---|---|
| 1/4 | c | water |
| 1/2 | c | date butter |
| 1/4 | c | smooth, raw, almond butter |
| 1 | tsp | vanilla |
| 1/8 | tsp | salt |
| 1/4 | c | soy milk powder (without added oils or other harmful additives) |

Spread on **Carob Brownies**

## JACK CHEESE

| | | |
|---|---|---|
| 1 | c | water |
| 1/3 | c | plus 1 rounded tablespoon Emes unflavored gelatin |
| 1 1/2 | c | boiling water |
| 2 | c | clean, raw cashews |
| 1/2 | c | yeast flakes |
| 1/2 | c | lemon juice, fresh |
| 3 | tbsp | carrot (finely grated), packed |
| 2-4 | tbsp | fresh onion, **or** 2 teaspoons onion powder |
| 1 | tbsp | salt |

Soak gelatin in the 1 cup of water in liquefier while assembling remaining ingredients. Pour boiling water over soaked gelatin and whiz briefly to dissolve. Cool slightly. Add cashews and liquefy thoroughly. Add remaining ingredients. Liquefy until mixture is the consistency of a creamy sauce, with no bits of carrot visible. Pour into mold(s). Refrigerate overnight before serving. After firming in the refrigerator this cheese may be frozen until needed. Makes 1 quart.

Do not substitute agar for the Emes gelatin as it does not give good results.

## CAROB BROWNIES

| | | |
|---|---|---|
| 2 | c | clean, raw cashews |
| 1 | tbsp | vanilla |
| 1/2 | tsp | maple flavoring |
| 2 | tbsp | tahini |
| 3/4 | c | carob powder |
| 1 1/2 | c | water, or more (up to 2 cups) |
| 1 | c | honey (or less) |
| 1 | tsp | Postum (opt) **or** similar product |
| 1 | tsp | salt |

Blend the above ingredients until very smooth. Add to, and mix with:

| | | |
|---|---|---|
| 4 | c | whole wheat bread crumbs (Chunks of soft bread, blended |

Pour into 9 x 12 baking dish or cake pan. If making unfrosted brownies, add a few chopped walnuts to the batter Bake 40 to 50 minutes at 300° F. Top with **Carob Fudge Frosting.**

*Variation:* Replace 2 cups of cashews with 1 cup cashews plus 1 cup hot cooked rice or millet, and reduce water to 1 to 1 1/4 cups.

## OLD WORLD BREAD

| | | |
|---|---|---|
| 2 | c | lukewarm water |
| 1 | tbsp | yeast |
| 1 | tbsp | honey **or** other sweetener |
| 1/2 | c | gluten flour |
| 1/4 | c | carob powder |
| 1/2 | c | rolled oats |
| 2 | c | rye flour |
| 1/3 | c | molasses |
| 1 | tbsp | salt |
| 2 | c | whole wheat flour (hard wheat) |

Put water, honey and yeast in a bowl to soften. Stir together gluten flour, carob powder, oats, rye flour, and salt, and add to yeast mixture. Stir in molasses. Let stand for 10 minutes. Add whole wheat flour to make a stiff dough. Knead vigorously for 10 minutes, until dough is moist but not sticky. Allow to rise until double in bulk. Punch down. Shape into 2 round loaves, and place them on a cookie sheet. Let rise 45 minutes. Preheat oven to 350° F. Bake loaves for 1 hour, or until done.

## CORN BREAD
(Yeast raised)

| | | |
|---|---|---|
| 2 1/2 | c | warm water |
| 1 | tbsp | dry yeast |
| 2 | | dates |
| 2 | c | whole grain corn meal |
| 1/3 | c | sunflower **or** sesame seeds blended dry to a fine meal |
| 1 | c | whole wheat flour |

| | | |
|---|---|---|
| $1^1/_4$ | tsp | salt |

Blend dates and warm water. Add yeast, and let stand until it foams. Mix dry ingredients. Add yeast mixture and stir well. Pour into a shallow baking pan and let stand 10 minutes. Bake 45 minutes at 375° F. Yield: 16 servings.

## CORN MUFFINS

(Yeast raised)

| | | |
|---|---|---|
| 2 | c | very warm water |
| 1 | tbsp | yeast |
| $1^3/_4$ | c | w.w. flour (hard wheat) |
| $^1/_4$ | c | nut or seed meal, very fine |
| 1-2 | tbsp | sweetening **or** 2 - 3 dates, minced |
| 2 | c | cornmeal |
| 1 | tsp | salt |

Stir sweetening into the warm water and sprinkle the yeast onto the water. Let it rest until the yeast pops up. Stir in the other ingredients and beat with a wire beater or spoon. Let batter rise in a warm place 20 to 30 minutes. Whip again, Fill muffin tins $^1/_2$ full, or drop large spoonsful onto baking pan. Smooth top, and let rise in warm place 5 to 8 minutes. Bake 40 to 45 minutes at 375° F. May be baked as sheet corn bread, 45 to 50 minutes.

## QUICK 'N EASY BREAD

| | | |
|---|---|---|
| 1 | c | warm water |
| 2 - 3 | | dates, minced, or blended in part of liquid, **or** other sweetener |
| 2 | tbsp | yeast |
| 4 | c | very warm water |
| $^1/_3$ | c | sesame **or** other seed meal |
| 10-12 | c | whole wheat flour |
| 2 | tsp | salt |

Stir sweetener into 1 cup warm water, and sprinkle the yeast on top. Stir 4 to 5 cups of whole wheat flour into the 4 cups of very warm to hot water, and stir vigorously a few minutes. (The very warm to hot water quickly brings out the gluten.) If necessary, cool a little, then stir in the yeast mixture, and let rise. Stir in the rest of the flour for a firm dough, and knead lightly. Form into loaves or buns, and let rise 15 to 20 minutes. Preheat oven to 425° to 450° F. When bread is placed in the oven reduce heat to 350° F, and bake 45 to 50 minutes for buns, and 50 to 60 minutes for bread. (The very hot oven causes the bread to rise quickly as it starts to bake.)

## BANANA-NUT MUFFINS

| | | |
|---|---|---|
| 3 | c | whole wheat flour |
| $^1/_2$ | c | oat flour **or** unbleached white flour |
| $1^1/_3$ | c | warm water |
| 2 | c | mashed bananas |
| $^1/_2$ | c | chopped nuts or seeds |
| 2 | tbsp | yeast |
| 2 | tbsp | honey or other sweetener |
| 2 | tbsp | raw tahini |
| 1 | tsp | salt |

Mix water and sweetener together, and sprinkle on the yeast. Let it rest 5 minutes. Stir in remaining ingredients. Fill oiled muffin tins $^1/_2$ full with batter, or drop by large spoonsful onto an oiled cookie sheet. Let rise 10 to 15 minutes. Bake 30 to 35 minutes at 350° F. Makes 18 muffins.

## MIX 'N BAKE BREAD

| | | |
|---|---|---|
| 1 | c | warm water |
| 1 | tbsp | diastatic malt **or** 2 dates, minced |
| 2 | tbsp | yeast |
| 4 | c | very warm water |
| 8 - 10 | c | whole wheat flour, warm |
| 1 | c | oat flour (rolled oats, blended) |
| 1 | c | rolled oats |
| $^1/_3$ | c | sesame seeds, blended dry to a fine meal |
| 2 | tsp | salt |

Add minced dates or malt to 1 cup warm water, and sprinkle the yeast over this mixture. Let rest until frothy. Add rolled oats, sesame seed meal, and salt to the rest of the water, so oats can absorb water while yeast is starting. Add frothy yeast mixture., and stir in the flours to make a firm, but soft dough. Let rest 10 to 15 minutes. Sprinkle $1^1/_2$ to 2 tbsp quick rolled oats on bottom of 2 bread pans. Moisten hands, and shape dough into 2 loaves, and place in prepared pans. Let rise 15 to 20 minutes. Preheat oven to 425°; reduce to 350° when bread is placed in the oven; bake 50 to 60 minutes.

*Variations:* Replace 1 to 2 cups of flour(s) with 1 to 2 cups of rye flour **or** 1 to 2 cups of corn meal (add cornmeal to warm water to absorb liquid while yeast is starting). Add 2 tbsp caraway seeds to rye bread batter, **or** 1 tsp

oregano to corn bread batter, if desired. Replace sesame seed meal with other seeds/nuts.

## SESAME-OAT ROLLS
(Dairyless - Eggless)

Sponge:

| | | |
|---|---|---|
| 2 | c | **Plus** 2 tbsp warm water |
| 1 | c | rolled oats |
| 1 1/2 | tbsp | yeast |
| 1/2 | c | honey |

Mix above ingredients and let rest until bubbly. Then add the following, and mix well:

| | | |
|---|---|---|
| 1/3 | c | sesame seed meal (blended dry seeds) |
| 1/2 | tbsp | salt |
| 5 1/2 | c | hard whole wheat flour (may need 6 cups flour) |

Add the least amount of flour for a soft, light, dough. Just mix until the dough is thoroughly combined. Lastly add 2/3 cup sesame seeds.

Place in an oiled bowl. Let double. Punch down. Divide into 12 pieces, shape into rolls (small balls).

These will rise a lot, so give them plenty of room. Bake at 350° F for 25 to 35 minutes, till golden on bottom.

## CORN SOY MUFFINS (OR STICKS)

| | | |
|---|---|---|
| 2 | c | soaked soybeans (3/4 cup dry) |
| 2 | c | water |
| 1/2 | | ripe banana (may use whole) |
| 1/3 | c | sesame OR sun seeds (optional) |
| 1 1/2 | tsp | salt |
| 1/4 | c | rolled oats |
| 1 1/2 | c | fine cornmeal |
| 1/2 | c | oat flour |

Blend dry rolled oats to make flour. Place in mixing bowl with cornmeal. Blend first six ingredients until smooth. Stir into cornmeal and oat flour mixture. Bake in prepared, preheated iron gem pans, or muffin pans. Bake 35 to 40 minutes at 375° F. Yield: 14 corn sticks.

*Variations:* Oat flour may be replaced with additional cornmeal, or whole wheat flour. Cornmeal may be replaced with millet meal. Replace banana with 4 to 6 dates;.

*Note:* For a tender crust and moist texture, slip hot cornsticks into a covered casserole to cool

## CORN SOY MUFFINS WITH BUCKWHEAT

| | | |
|---|---|---|
| 1/3 | c | buckwheat groats |
| 2/3 | c | hot water |
| 1 | | recipe **Corn Soy Muffins** |

Heat water to scalding. Remove the pan from the heat, and stir in the buckwheat groats. Let stand while preparing **Corn Soy Muffin** recipe. Stir in groats, and bake as directed.

## PRUNE-DATE JAM

| | | |
|---|---|---|
| 1 | c | pitted prunes |
| 1 | c | chopped dates |
| 1 | c | orange juice |

Simmer all ingredients for 5 minutes. Blend until smooth and creamy; or mash fairly smooth for a chunky jam. Crushed, or diced dried, pineapple, chopped nuts may be added.

## "CHILI"

| | | |
|---|---|---|
| 2 1/2 | c | dry red beans |
| 2 | qts | water |
| 1/3 | c | chopped celery |
| 1/3 | c | chopped green pepper |
| 1/3 | c | chopped onion |
| 1 | tbsp | Bragg's Liquid aminos |
| 1 | tbsp | honey, **or** 2 chopped dates (opt) |
| 1 | tbsp | salt |
| 2 | tsp | cumin |
| 4 | c | tomatoes, crushed |

Soak beans overnight. Drain, then cover beans with 1 1/2 to 2 quarts of water, so that there is 2" of water over top of the beans. Simmer for 2-3 hours, or until tender. Add vegetables and seasonings, and simmer until vegetables are tender and liquid is of desired consistency. Add more water if necessary, or remove lid to let steam escape. Do not over cook vegetables.

## LEE'S KALE SALAD

| | | |
|---|---|---|
| 1/2 | lb | fresh, tender, kale |
| 1/2 | c | chopped green onions or chives |
| 1 | | small can sliced ripe olives |

| | | |
|---|---|---|
| $^{1}/_{4}$ | c | liquid from olives |
| 3 | tbsp | lemon juice |
| 1-2 | tbsp | Bragg's Liquid aminos |
| Dash | | onion and garlic powders, and herbs, (dill, basil, thyme, etc) |

Chop kale very fine. Add onions and olives. Combine olive liquid, lemon juice, and seasonings. Dress salad just before serving.

*Variations:* Use part leaf lettuce. Add diced avocado, shredded carrot;, and/or sliced radishes ; a sprinkle of sunflower seeds.

## CARROT PINEAPPLE SALAD

(Best when made a day ahead)

| | | |
|---|---|---|
| 3 | c | carrot chunks , raw |
| 3 | tbsp | sunflower seeds**,** raw |
| 1 | c | pineapple, crushed **or** tidbits |
| $^{1}/_{3}$ | c | coconut, unsweetened |
| $^{1}/_{2}$ | c | raisins |
| 3 | tbsp | orange juice, frozen concentrate |

Blend dry sunflower seeds to a fine meal; pour into bowl. Blend (on pulse) carrot chunks, $^{1}/_{2}$ to 1 cup at a time, to desired texture. Combine all ingredients. Chill several hours (Seed meal and juice make the dressing.)

## POTATOES A LA GREENS

| | | |
|---|---|---|
| 4 | c | potatoes, diced |
| 1 | | medium onion,chopped |
| 2 | | clove of garlic, minced |
| $1^{1}/_{2}$ | c | water |
| 2 | tsp | salt (scant teaspoons) |
| 1 | tbsp | raw tahini (sesame butter) |
| 2-3 | c | chopped kale, or other greens |
| $^{1}/_{2}$ | c | minced parsley, (or more) |
| $^{1}/_{2}$ | c | chives, or green onions, minced |
| 1 | tsp | lemon juice (optional |

Add potatoes, onion, and garlic, to boiling salted water, and simmer 10 to 15 minutes until tender. Stir tahini smooth with 2 to 3 tablespoons of the hot broth, and add to the potatoes. Stir in greens, parsley and chives, and lemon juice just before serving.

*Variations:* Add $^{1}/_{4}$ to $^{1}/_{2}$ cup **Best Like Butter** or **Best Chez Spread,** if desired. Add 1 c well cooked wheat berries for texture..

## WALNUT ROAST

| | | |
|---|---|---|
| 2 | c | cooked brown rice (moist, hot) |
| 1 | c | walnuts |
| 1 | c | cashew cream ($^{1}/_{4}$ c cashews to $^{3}/_{4}$ c hot water, blended) |
| $^{1}/_{4}$ | c | Bragg's liquid aminos |
| $^{1}/_{2}$ | | medium onion |
| 1 | | garlic clover |
| $^{1}/_{4}$ | tsp | salt |
| 2 | | small stalks of celery, diced |
| 2 | c | fresh whole-grain bread crumbs |

Blend first 8 ingredients until mixed, **not smooth,** keeping mixture a little chunky. Use spatula to help it blend evenly. Stir in celery and bread crumbs. Bake 1 hour at 350° F.

## CREAMY COLESLAW

| | | |
|---|---|---|
| 3 | c | shredded cabbage |
| $^{1}/_{2}$ | c | parsley, minced |
| $^{1}/_{2}$ | tsp | fresh sweet basil, minced ($^{1}/_{4}$ tsp if dry) **or** winter savory |
| 2 - 4 | tbsp | lemon juice |
| $^{1}/_{2}$ | tsp | fresh lemon zest (grated rind) |
| 2 - 4 | tbsp | grated onion |
| 1 | c | **"Sour Cream"** for dressing |
| $^{1}/_{2}$ | tsp | salt |

Mix together all ingredients. Adjust seasonings. Chill and **s**erve.

Variations: Add any one of the following:
1 to $1^{1}/_{2}$ cups of cooked legume, such as lima, pinto, or kidney beans, or chick peas; **or** some diced cucumber and sweet pepper; **or** some cubed tomato with minced celery; **or** 1 diced banana and/or 1 cup drained pineapple.
1 or 2 tbsp frozen orange concentrate may be added for a sweet/sour flavor.

## ROSY SLAW

Add 2 to 4 tablespoons of tomato paste to the dressing for any of the the above coleslaw combinations, except the last one.

## CHEESY BROCCOLI SOUP

| | | |
|---|---|---|
| 3-4 | c | broccoli, coarsely chopped |

| | | |
|---|---|---|
| 3 1/2 | c | water |
| 1 | c | cashews, clean raw |
| 2 1/2 | tsp | salt |
| 1/2 | c | pimientos |
| 6 | tbsp | yeast flakes |
| 2 | tsp | onion powder |
| 1/4 | tsp | garlic powder |
| 1/2 | tsp | dill weed |

Blend one-half of the water with remaining ingredients (except broccoli). Pour into saucepan with the remaining water and broccoli. Cook on low heat until broccoli is tender.

## BEET AND RICE SALAD

| | | |
|---|---|---|
| 1 1/2 | lb | fresh beets with 1 inch stems, unpeeled |
| 1-1 1/2 | c | cooked wild rice **or** brown rice |
| 1/2 | c | chopped celery |
| 3 | tbsp | chopped fresh parsley |
| 1/4 | c | minced chives or green onions |
| 1/2 | tsp | celery seed |
| | | salt to taste |
| 1 | c | or more,"**Sour Cream**", **or Cashew Mayonnaise** |

Simmer beets until tender. Cool. Remove the skins, if desired. Grate the beets into a large bowl. Add the cooked rice, vegetables, and seasonings. Toss lightly. Add dressing, and toss to mix. Adjust seasonings to taste. Serve chilled, or at room temperature.

## WILD RICE AND POTATO BAKE

| | | |
|---|---|---|
| 1/2 | c | wild rice |
| 2 | c | water |
| 2 | lbs | large potatoes |
| 1 | | medium onion, chopped |
| 2 | tbsp | fresh thyme leaves **or** chopped parsley |
| 2 | tsp | raw tahini, **or** 3 tbsp finely chopped almonds |
| 1 | tsp | salt, or to taste |

Bring water to a boil and add the wild rice. Simmer until the grains start to split and the water is absorbed. Scrub the potatoes. Bring to a boil, and simmer for 10 to 15 minutes, until just tender. Drain, and cool slightly. When cool, peal the potatoes and coarsely grate them into a large bowl. Add the cooked rice.

Stir steam onions in a tablespoon or two of water to wilt. Stir in the raw tahini and thyme leaves. Add this mixture to the potato-rice mixture, and combine well. Pat into a large pie pan or baking dish. Bake 30 to 40 minutes at 350° F. Cut into wedges or squares, and serve with **Carrot Orange Sauce.**

## CARROT ORANGE SAUCE

| | | |
|---|---|---|
| 1 | lb | carrots |
| 1 | | large orange |

Scrub carrots, and chop into chunks. Add 2 small pieces of orange rind, and simmer until tender. Discard orange rind. Blend carrots with 4 to 6 tablespoons of orange juice. Reheat to serve.

*Alternate method:* Mash cooked carrots, add orange juice, reheat; or shred raw carrots, stir-steam to soften. Add orange juice, and reheat.

## UNLEAVENED BREAD STICKS

| | | |
|---|---|---|
| 1 | c | water |
| 1 | tbsp | honey |
| 1 | tsp | salt |
| 2 | tbsp | tahini, raw |
| 1/2 | c | sesame seeds |
| 2 1/2 | c | whole wheat flour (up to 3 cups) |

Roll out to 1/4 inch thickness; cut with a dull knife. Bake on sprayed baking sheet at 400° F 15 minutes, or until a delicate golden brown.

## THE "BIG MAC"

| | | |
|---|---|---|
| 1/2 | c | dry garbanzos (chick peas), soaked |
| 1/2 | c | water |
| 1 | c | rolled oats, uncooked |
| 1 | c | walnuts, finely chopped |
| 1 | | medium onion, minced |
| 4 | tbsp | rich nut milk |
| 1 | tsp | salt |
| 1 | tsp | sage |
| 1 | tbsp | Bragg's liquid aminos |

Whiz garbanzos and water in blender. Pour into bowl and stir in remaining ingredients. Drop from spoon or ice cream scoop to form patties in sprayed skillet. Brown on both sides over medium heat. Serve in burger buns with all the trimmings, or in a casserole dish with gravy over the top. Bake for 1/2 hour at 350° F. Makes 6 large patties.

## ALPINE CHEESE

| | | |
|---|---|---|
| 1/2 | c | water |
| 1/3 | c | Emes unflavored gelatin |
| 2 | c | well-cooked corn flour mush |
| 1/3 | c | tahini (sesame butter), raw **or** 1/2 cup sesame seeds milled to butter or very fine meal. |
| 1/4 | c | lemon juice |
| 1/4 | c | food yeast flakes |
| 2-3 | tbsp | onion, **or** 1 tbsp onion powder |
| 2 1/2 | tsp | salt (if mush was unsalted) |
| 1 | | clove of garlic **or** 1/4 tsp garlic powder |

Soak Emes in water for several minutes in liquefier. Add hot corn flour mush and whiz to dissolve gelatin. Add remaining ingredients and thoroughly liquefy. Cool and refrigerate until firm and sliceable. Yields 3 cups.

*Note:* If you do not care for the tahini flavor, replace it with 1/3 cup cashew butter, or a combination of the two. This is the best cheese for broiling, as it does not melt away. as some of the other cheese do; it is good on pizza and toasted cheese sandwiches.

## ALPINE PIMIENTO CHEESE

Blend enough pimentos, red bell pepper, or paprika, with the above **Alpine Cheese** recipe to make a light orange color.

## CORN FLOUR MUSH

| | | |
|---|---|---|
| 1 | c | fine corn flour (whole grain is best, though a bit grainy) |
| 1 | c | cold water |
| 3 | c | boiling water |

Mix corn flour with 1 cup cold water until smooth. Add this gradually to the boiling water, stirring until well blended, and the boiling point is reached. Cook over very low heat, or in a double boiler, for 1 1/2 hours.

*Variation:* Replace corn flour mush with well cooked polenta or millet. The finished product is more firm, and not as sticky as the cheese made with corn flour.

## PIÑA COLADA SMOOTHIE

| | | |
|---|---|---|
| 2 - 3 | | frozen bananas, in chunks |
| 3 | c | pineapple juice |
| 1/4 | c | clean, raw cashews |
| 1/4 | tsp | coconut flavoring |

Blend cashews in 1 cup of the juice until *very* smooth. Add banana chunks and remaining juice gradually while blending. Blend until smooth. Serve immediately.

*Variation:* Replace all or part of the pineapple juice and nuts with an equal amount of pineapple-coconut juice. Omit coconut flavoring.

## SORBET

| | | |
|---|---|---|
| 1 | pkg | frozen raspberries/strawberries or fruit of your choice |
| 2 - 3 | | well frozen bananas, in chunks |
| 1/2 | c | pineapple juice |

Blend to sherbert consistency. Add more frozen bananas if needed.

## PINE-APRICOT JAM

| | | |
|---|---|---|
| 1 | c | dried apricots |
| 3-4 | | dried pineapple rings, chopped, (dipped in own juice) |
| 1 | | can crushed pineapple |

Soak dried fruit in crushed pineapple overnight, and blend smooth. Or simmer until soft, and stir fairly smooth for a chunky jam

## KETCHUP

| | | |
|---|---|---|
| 1 | c | tomato sauce **or** tomato puree |
| 1/4 | c | tomato paste |
| 2 | tbsp | finely chopped onion |
| 1 | | clove garlic, minced finely |
| 2 | tbsp | fresh lemon juice |
| 1 | tbsp | honey **or** 2 tbsp date butter |
| 1/2 | tsp | sweet basil |
| 1/2 | tsp | salt |

Stir all ingredients together. Keep refrigerated in an airtight container.

## POTATO SALAD

| | | |
|---|---|---|
| 6 | | medium cold potatoes, precooked with peelings |
| 1 | c | diced celery |
| 1 | c | chopped olives |
| 1/2 | c | chopped red or green sweet pepper |
| 1 | | small sweet onion, minced |
| 2 | tbsp | minced fresh parsley |
| 1-2 | tsp | dill weed |
| | | salt to taste (approx 2 tsp) |
| | | Paprika for color |
| 1 | c | **Cashew Mayonnaise** (or more) |

Peel, cube, and mix potatoes with other ingredients, adding the mayonnaise last The flavors blend if made ahead and refrigerated until served.

*Variations:* Add 1 cup shredded carrot, **or** some chopped radishes, **or** chopped cucumber.

## WAFFLE HASH BROWNS

Spray waffle iron lightly with Pam or similar product if it is not silverstone or non-stick finish, and pre-heat to "hot". Fill hot iron heaping full with shredded raw or cooked potatoes, and sprinkle lightly with salt. Close lid and bake 15 to 20 minutes for raw potatoes (cooked potatoes slightly less), or until golden brown. Shredded onion and other seasonings may be added to the shredded potatoes before baking.

## CASHEW MAYONNAISE

| | | |
|---|---|---|
| 1 1/4 | c | boiling water |
| 1 | c | raw cashews, cleaned |
| 1/4 | c | lemon juice |
| 1 | tbsp | honey (scant) (opt.) |
| 1 | tsp | salt |

Blend all ingredients, except lemon juice, until very smooth and creamy (2 to 3 minutes). Add lemon juice and blend briefly. Yield: 1 pint.

*Variation:* Replace honey with 2 to 3 tsp frozen orange concentrate for sweet/sour flavor.

Each tablespoon of mayonnaise has only a little more than a teaspoon of cashews so is still quite low in fat. The water must be boiling hot to somewhat cook the cashews to thicken.

## CARAMEL CORN

(This tastes better than Cracker Jacks, and the surprise is that it's a light, healthy dessert!)

| | | |
|---|---|---|
| 1/2 | c | unpopped popcorn |
| 1/4 | c | natural almond butter **or** tahini |
| 1/3 | c | molasses (not blackstrap) |
| 1/4 | tsp | salt |

Pop corn in hot air popper. Heat remaining ingredients in saucepan over medium heat until bubbly. Drizzle over popcorn and stir to coat. Spread out on non-stick cookie sheet, or use Pam spray. Bake at 200° F for 1 1/2 hours. May be stored in airtight container.

## LENTIL SALAD

(A hearty picnic salad)

| | | |
|---|---|---|
| 2 | c | cooked lentils |
| 1 | c | cooked brown rice |
| 1/4 | c | chives, minced (or green onions) |
| 2-4 | tbsp | lemon juice |
| 1/4 | tsp | fresh lemon zest (grated rind) |
| 1/3 | c | walnuts, chopped |
| 1/2 | c | celery, chopped |
| 2 | tbsp | minced fresh parsley |
| 1 | c | tomatoes, chopped |

Mix all ingredients except tomatoes. Chill. Stir in the tomatoes just before serving.

*Variations* Replace tomatoes with 1 cup shredded carrots and 1/4 cup chopped celery.

**ZUCCHINI-SPINACH LASAGNA**

1 Recipe **Cashew-Pimiento Cheese Sauce.**

| | | |
|---|---|---|
| 9 | | whole wheat lasagna noodles |
| 1 | c | chopped onion |
| 1 | c | cooked spinach |
| 2 | | raw medium zucchini, sliced |
| 16 | oz | stewed tomatoes, with juice |
| 8 | oz | tomato sauce **or** puree |
| 1/2 | c | chopped green pepper |
| 1/4 | tsp | oregano |
| 1/4 | tsp | sweet basil |
| 1 | tsp | salt |

Cook noodles as directed on package. Stir-steam onion and green pepper until tender. Add zucchini, tomatoes, tomato sauce, salt, basil, and oregano, and simmer slowly for 20 minutes. Drain and rinse noodles. Alternate layers beginning with tomato-vegetable mixture followed by noodles, spinach, and **Cashew Pimiento Cheese Sauce.** Bake for 45 minutes at 350° F. Yield: 8-10 servings.

*Note:* Use extra lasagna cooking liquid in gravies, stews, etc.

**CASHEW-PIMIENTO CHEESE SAUCE**

| | | |
|---|---|---|
| 1 | c | clean, raw cashews |
| 1/2 | c | water |
| 1 | oz | pimientos |
| 2 | tsp | lemon juice, fresh |
| 2 | tbsp | chopped onion **or** 1 tsp onion powder |
| 1 | | garlic clove **or** pinch of garlic powder |
| 2 | tbsp | food yeast flakes (opt.) |
| 1/2 | tsp | salt |

Blend all ingredients until smooth. This does not need to be cooked. Use on top of pizza before baking, on casseroles and lasagna, and in taco salad.

**GARBANZO BURGERS**

| | | |
|---|---|---|
| 2 | c | soaked garbanzos |
| 1 1/4 | c | water |
| 1 1/2 | c | soaked soybeans |
| 1 | | small onion |
| 1 | | clove garlic |
| 1/2 | tsp | marjoram |
| 1 | tsp | salt |

Blend all ingredients together. (If preferred, soybeans may be ground.) Form into patties and bake in 350° F oven until brown and set. Makes 8 servings.

*Variation:* Replace water with tomato juice.

**SPAGHETTI SAUCE**

| | | |
|---|---|---|
| 1 | | large onion, chopped |
| 3-4 | | cloves garlic, minced |
| 1 | | green pepper, chopped |
| 1 | qt | canned tomatoes |
| 1 | c | tomato puree |
| 3/4 | c | tomato paste |
| 1 | c | water and/or liquid from olives |
| 2 | tbsp | lemon juice |
| 1/4 | tsp | zest (grated lemon rind – opt.) |
| 2-3 | | dates, chopped very finely |
| 1 | 4-oz | can olives |
| 1/4 | c | dried parsley flakes |
| 1 1/2 | tsp | sweet basil |
| 1 | tsp | oregano |
| 1/4 | tsp | thyme |
| 2 | tsp | salt |

Stir-steam onion, green pepper, and garlic in small amount of water or liquid from olives. Add remaining ingredients. Simmer for 20 to 30 minutes.

*Variation:* Replace dates with 2 to 3 tablespoons of frozen orange concentrate.

**SPAGHETTI SAUCE WITH SQUASH**

Omit tomato puree and dates from above recipe. Stir steam 1 to 1 1/2 cups grated winter squash with other vegetables. Proceed as above.

**GREEN RICE**

| | | |
|---|---|---|
| 2 | c | cooked brown rice |
| 1 | c | cubed **American Cheese** |
| 1 | c | chopped chives |
| 1 | c | chopped parsley |
| 1 | c | soaked soybeans |
| 1 | c | boiling water |
| | | salt if necessary |

Blend soaked soybeans and water until creamy. Combine with rice and cheese. Bake in covered baking dish 30 minutes at 350° F. Stir in chopped chives and parsley, and salt if needed. Bake an additional 5 minutes.

# RECIPES

## PUMPKIN PIE

| | | |
|---|---|---|
| $1^1/_2$ | c | chopped dates |
| $1^1/_4$ | c | water |
| 1 | c | clean, raw cashews |
| 1 | tbsp | coriander |
| $^1/_2$ | tbsp | cardamon |
| 1 | tsp | vanilla |
| $^1/_2$ | tsp | salt |
| 1 | 16-oz | can pumpkin |
| $^2/_3$ | c | water |
| 2 | tsp | Emes gelatin |
| | | Partially baked pie crust |

Blend first 7 ingredients until very smooth. Add to pumpkin; and stir until well mixed. Bring $^2/_3$ cup water to boil and add Emes. Stir until dissolved. Add to pumpkin mixture and stir well. Pour into pie crust. Bake at 350° F for 50 minutes. Let cool. Top with a dessert topping if desired.

## EXCELLENT PIE CRUST

**Whiz**

| | | |
|---|---|---|
| $^1/_2$ | c | raw cashews, cleaned |
| $^1/_4$ | tsp | salt |
| $^1/_2$ | c | less 2 tbsp water |

**Stir** into

| | | |
|---|---|---|
| $1^1/_4$ | c | (or more) barley, millet or rice flour |

Roll between 2 sheets of plastic, or waxed paper. Remove top sheet, place crust in pie plate, and remove second sheet. Trim, and bake at 350° F for 12 minutes. Fill and continue baking as needed. Makes 1 crust.

NOTE: Do not use wheat flour. It will not make a tender crust. Barley makes most tender crust.

## FRUITED KANDY YAMS

| | | |
|---|---|---|
| 4 | lbs | fresh yams (or sweet potatoes) |
| 2 | 20 oz | can pineapple tidbits in own juice |
| 2-3 | tbsp | frozen orange juice concentrate |
| $^1/_2$ | tsp | salt (optional) |

Bake yams until almost tender. Cool enough to peel. Drain juice from pineapple, and simmer over low heat to concentrate it to about a quarter or third of the original volume. Add tidbits, orange concentrate, and salt. Peel and

slice yams, placing the slices in a 9 x 13 pyrex baking dish. Spoon pineapple sauce over yams and reheat in a 350° F oven for 20 to 30 minutes. The liquid should be absorbed.

*Note:* This may be prepared a day ahead. Also, this may be completed on stove top on low heat.

## FRESH YAMS IN ORANGE SAUCE

(Refreshing change from candied yams)

| | | |
|---|---|---|
| 4 | lbs | fresh yams or sweet potatoes |
| 2 | tbsp | cornstarch **or** arrowroot powder |
| 2 | c | orange juice |
| $^1/_2$ | c | pitted dates |
| $1^1/_2$ | tsp | grated orange peel |

Cook or bake yams until nearly tender. Peel and slice. Place slices in a large casserole dish with a cover. Blend remaining ingredients until smooth, and simmer in small saucepan until mixture thickens, stirring constantly. Pour sauce over yams, cover and bake 45 minutes at 400° F. Remove cover, and bake an additional 15 minutes. Garnish with orange slices and sprigs of mint.

*Note:* This can be assembled a day ahead and refrigerated until ready to heat and serve.

*Alternate Method:* Scrub yams, and peel lightly. Slice, and place in a large covered casserole dish. Proceed as above, baking yams with sauce until tender, about 45 minutes.

## WINTER FRUIT RING

| | | |
|---|---|---|
| 2 | c | boiling water or fruit juice |
| $1^1/_2$ | tbsp | Emes gelatin |
| $^3/_4$ | c | finely chopped dried apricots **or** prunes |
| $^3/_4$ | c | Nutri-grain Nuggets |
| $^3/_4$ | c | raisins, finely chopped |
| $^3/_4$ | c | walnuts or pecans, finely chopped |
| $^1/_4$ | c | dates, finely chopped |

Stir Emes into boiling water until dissolved. Stir in remaining ingredients and pour into a ring mold or other mold, and refrigerate until set. Garnish with mint leaves and orange or lemon twists, if desired.

*Serving Suggestion:* Fill ring with fresh fruit just before serving.

## THANKSGIVING LENTIL LOAF

| | | |
|---|---|---|
| 1 | c | tomato puree |
| 1 1/2 | c | dry bread crumbs |
| 2 | tbsp | soy flour |
| 1 | c | coarsely chopped walnuts |
| 1 | | onion, finely chopped |
| 1 | c | grated carrots |
| 1 | c | chopped celery |
| 1 | tsp | salt |
| 1/2 | tsp | oregano |
| 1/2 | tsp | each sage, thyme, marjoram |

Combine above ingredients and mix well. Then fold in carefully:

| | | |
|---|---|---|
| 2 | c | cooked lentils (scant 1 c raw) |

Bake in a quart-and-a-half casserole dish 1 to 1 1/4 hours at 350° F. This is nice baked in a prepared ring mold.

## RAW CRANBERRY-ORANGE RELISH

| | | |
|---|---|---|
| 1 | c | packed dates **or** 1/2 c honey |
| 6 | oz | frozen orange juice concentrate |
| 1 | lb | cranberries, sorted and washed |
| 1 | | whole orange, cut in pieces (including rind) |
| 2 | tbsp | honey |

FOOD GRINDER: Grind orange, cranberries and dates on medium grind. Mix in orange juice concentrate and honey.

FOOD PROCESSOR: Chop cranberries on "pulse" and put in a large bowl. Chop remaining ingredients on "pulse" until orange is minced (but not too finely). Mix all ingredients together in bowl.

NOTE: This relish may be made in a variety of ways. Whichever method you use, however, the relish should not be chopped too finely. It is best made a day ahead so that the flavors have time to blend.

## COOKED CRANBERRY-ORANGE RELISH

Use dates, and replace extra honey with 2 to 3 rings of dried pineapple, diced. Discard orange rind (optional), and grind/chop orange. Simmer all ingredients until cranberries pop. Cool. Blend half of mixture until smooth. Stir in remaining cooked relish. Chill and serve.

## CREAMY TOMATO GRAVY

| | | |
|---|---|---|
| 1 | qt | canned tomatoes |
| 1/2 | c | clean, raw cashews |
| 1/2 | c | well-cooked brown rice |
| 1 | | large onion, chopped |
| 2 | tsp | honey (opt) |
| 1-2 | tsp | salt |
| 1 | | clove garlic, minced |
| 1/4 | tsp | oregano |
| 1/2 | c | water |

Blend cashews and rice with about 1 cup of the tomatoes until very smooth. Add remaining tomatoes and other ingredients, except water, and continue blending until smooth. Pour into a saucepan. Rinse blender with 1/2 cup water, then pour into saucepan. Simmer for 10 minutes, stirring frequently. If necessary, thicken with cornstarch mixed with a little cold water or blend in more rice.

## SIMPLE OAT-NUT BURGERS

(Excellent STROGANOFF burgers)

| | | |
|---|---|---|
| 4 1/2 | c | water |
| 1/2 | c | liquid aminos |
| 1 | | bay leaf |

Bring the above ingredients to a boil. Reduce heat, and add:

| | | |
|---|---|---|
| 4 1/2 | c | rolled oats |
| 1 | | medium onion, chopped |
| 2 - 4 | | garlic cloves, minced |
| 1 | c | pecans (or other nuts), chopped |

Mix well. Form into patties with a scoop. Bake 45 minutes at 350°. Yield: 20 burgers.

## RANCH DRESSING

| | | |
|---|---|---|
| 1/2 | c | raw cashews, cleaned |
| 1 | c | boiling water |
| 2 | tbsp | lemon juice |
| 1/3 | c | onion, chopped |
| 1 | | clove garlic |
| 1/2 | tsp | salt |
| 2 | tsp | parsley (dried)) **or** 4 tsp fresh minced parsley |

| | | |
|---|---|---|
| 1/2 | tsp | dill weed |

Blend first 6 ingredients until smooth. Stir in the dill weed and parsley. Chill and serve. *Note:* Do not blend after adding herbs.

### MILLIE'S APPLE SALAD

| | | |
|---|---|---|
| 10 | | Apples (medium) golden delicious are best |
| 1 | 20 oz | can crushed pineapple/in juice |
| 2 | Tbsp | frozen orange juice |
| 1 | c | raisins |
| 1/4 | c | almonds (grated or chopped fine) |

Place pineapple in large bowl. Grate apples into the bowl, stirring shredded apples into pineapple to keep them from browning. Add the rest of the ingredients, and mix well. This salad is better the second day after the flavors blend. It may be stored in refrigerator for up to a week.

*Variations:* Coconut, or other nuts/seeds may be used, and a few chopped dates may be added.

### RICE BUFFET SALAD

| | | |
|---|---|---|
| 3 1/2 | c | cooked brown rice |
| 2 | | sweet green peppers, chopped |
| 1 | | small onion, finely chopped |
| 2 | | small cloves of garlic, minced |
| 3/4 | c | coarsely chopped almonds or walnuts |
| 1/4 | c | chopped parsley |

Combine the above ingredients in a large bowl.

| | | |
|---|---|---|
| 1/4 | c | lemon juice |
| 1 | tbsp | tahini (sesame seed butter) opt. |
| 1 | tsp | paprika |
| 1/2 | tsp | salt |

Cream tahini in lemon juice, add seasonings, and pour over the rice mixture. Toss to mix ingredients well. Refrigerate until serving time.

| | | |
|---|---|---|
| | Lettuce | |
| 3 | medium tomatoes, quartered | |
| 2 | tbsp | chopped fresh basil or parsley, or other fresh herb |
| 1 | recipe of a slicing cheese | |

Arrange a bed of lettuce on large shallow serving platter. Mound the rice mixture in the center. Surround the salad with an arrangement of tomato wedges and sliced cheese. Scatter chopped herbs over all.

### BAKED GARLIC POTATOES

| | | |
|---|---|---|
| 2 | lbs | large potatoes |
| 1/3 | c | fresh lemon juice |
| 1/2 | c | water |
| 2 | tsp | oregano (or 1 tbsp fresh, minced) |
| 3 | | cloves garlic, minced |
| 1 | tbsp | tahini (raw) |
| 1 | tsp | salt |

Scrub potatoes, and cut in 1/2 inch strips. Stir tahini smooth in a small part of the water. Stir in lemon juice, seasonings,and. the rest of the water. (This may be done in the 9 x 13" baking dish.) Add potatoes, turning them in the liquid to coat all sides. Set baking dish on a sheet of foil to prevent burning potatoes on bottom. Bake in a 450° oven about 1 hour.

### SCRAMBLED TOFU II

| | | |
|---|---|---|
| 1 | lb | firm tofu |
| 1/2 | c | chopped green onions |
| 1/2 | c | sliced olives |
| 1/4 | c | slivered almonds |
| 2 | tsp | Bragg's liquid aminos |
| 1 1/2 | tsp | Chicken-style Seasoning |
| 1 | tsp | parsley flakes |
| 1 | | small onion, chopped |
| 1 | | clove garlic, minced |
| 1/4 | tsp | turmeric (opt) |

Drain tofu thoroughly in a colander for several hours, or overnight, before using. Mash drained tofu in a bowl and mix in remaining ingredients. Bake at 350° F for 30 minutes, or simmer in a nonstick skillet for about 20 minutes, or until all liquid has evaporated, stirring occasionally. Best if mixed several hours before cooking, to let flavors blend.

*Variation:* Combine with white sauce and serve over toast for Creamed Tofu Breakfast.

### MOCK PARMESAN CHEESE

| | | |
|---|---|---|
| 1 | c | sesame seeds (lightly toasted ) |

| | | |
|---|---|---|
| 1/2 | c | food yeast |
| 1/2 | tsp | onion powder |
| 1/4 | tsp | garlic powder |
| 1/2 | tsp | salt |

Blend dry until seeds are a fine meal. (Toasting the seeds is optional.)

### "CHEESE" CAKE

Blend until smooth:

| | | |
|---|---|---|
| 1/2 | c | blanched almonds |
| 1 | c | hot water |

Add the following:

| | | |
|---|---|---|
| 3/4 | c | honey |
| 1 | tsp | vanilla |
| 1/2 | tsp | coconut flavor **or** up to 1 tsp |
| 1 | | brick of tofu |
| 2 - 3 | tbsp | lemon juice |
| 1 | tbsp | Emes gelatin |

Blend until smooth. Pour into partially baked **Nutri-grain pie crust**. Bate about 30 minutes at 350°, or until set

*Variation:* Replace coconut flavor with 1 to 2 tablespoons of yeast flakes

**Topping:**

| | | |
|---|---|---|
| 2 | c | unsweetened grape juice **or** pineapple juice |
| 4 | tbsp | minute tapioca |
| 2 - 3 | | dried pineapple rings, chopped (juice dipped) |

Simmer until thick and clear. Blend until smooth. Return to pan and add:

| | | |
|---|---|---|
| 2 | c | blueberries (or more as desired) |

Serve over **"Cheese" Cake.**

*Variation:* Replace pineapple rings with 6 to 8 pitted dates, chopped.

### FRESH APPLE PIE

| | | |
|---|---|---|
| 2 | c | pineapple juice |
| 3 1/2 | tbsp | minute tapioca flour |
| 1 | tsp | ground coriander |
| 3 | c | grated apple |

Blend juice and tapioca, and coriander briefly. Simmer over low heat until clear, and thickened, stirring occasionally. Cool, and mix with the grated apples. Put in baked **Almond-oat Pie Crust.** Top with unsweetened macaroon coconut if desired. Chill, and serve.

*Variation:* Replace pineapple juice with white grape juice.

### ALMOND-OAT PIE CRUST

| | | |
|---|---|---|
| 1 | c | ground almonds, **or** blended to a very fine meal |
| 1 | c | oat flour (rolled oats blended) |
| 1/2 | tsp | salt |
| 1/4 | c | water **or** fruit juice |

Mix dry ingredients well. Add liquid, and mix. Press into pie pan, or roll between 2 pieces of wax paper with a rolling pin. Bake 15 minutes at 350°.

*Alternate Method:* Use food processor.

### DATE RICE PUDDING

| | | |
|---|---|---|
| 3 | c | cooked brown rice |
| 1 | c | chopped dates |
| 1/2 | tsp | grated lemon or orange rind |
| 1 1/2 | c | orange juice, or more |
| 1/2 | c | raw cashews, washed |
| 1 | | ripe banana (opt.) |
| 1 1/2 | tsp | vanilla |
| 1/4 | tsp | salt |
| 2 | tsp | ground coriander (opt) |

Spread half of the rice evenly in bottom of baking dish. Spread chopped dates over the rice, and cover with remaining rice. Blend remaining ingredients, and pour over the rice. Bake at 350° F for about 45 minutes. Serve hot or chilled.

### SLICING "CHEESE"

Soak in blender a few minutes:

| | | |
|---|---|---|
| 1/2 | c | cold water |
| 2 1/2 | tbsp | Emes gelatin, **or** up to 3 tbsp |

Add to blender:

| | | |
|---|---|---|
| 1 | c | hot cooked millet |
| 1/4 | c | cashews |

| | | |
|---|---|---|
| 1 | tbsp | lemon juice |
| 2 | tbsp | chopped onion |
| 1 | | clove garlic |
| 1 | | pimiento for color |
| $1^1/_2$ | tsp | caraway seeds (**or** dill **or** celery) |
| 1 | tsp | salt |
| | | black olives (opt.) |

Liquefy until smooth. Pour into mold. Refrigerate. Unmold, and slice. To grate, freeze first.

# LEAVES FROM THE TREE OF LIFE

In the beginning God created the heaven and the earth. So God created man in His own image, in the image of God created he him.
Genesis 1:1,27

And the Lord God. . . put him into the garden of Eden to dress it and to keep it. Genesis 2:15

I have given you every herb bearing seed. . . and every tree, in the which is the fruit of a tree yielding seed: to you it shall be for meat.
Genesis 1:29

*But Adam and Eve did not trust God. They listened to the wrong voice, so the human family needs healing. See Genesis 2 and 3.*

*Christ's work was, and is, to heal and restore us,-- mentally, physically, and spiritually.*

"And whithersoever He entered, into villages, or cities, or country, they laid the sick in the streets, and besought him that they might touch if it were but the border of his garment: and as many as touched him were made whole.
(Also Mark 15:28) Mark 6:56
(Mark 5:34, Matt 17:20, and Luke 7:1-10)

He sent His Word and healed them.
Psalm 107:20

And the Word was made flesh, and dwelt among us. . . . full of grace and truth. . . And of his fulness have all we received, grace for grace.
John 1:14, 16

In Him was life: and the life was the light of men. John 1:4

Beloved, I wish above all things that thou mayest prosper and be in health, even as thy soul prospereth. III John 2

*In the midst of the street of it, and on either side of the river, was there the tree of life, which bare twelve manner of fruits, and yielded her fruit every month: **and the leaves of the tree were for the healing of the nations.***

***Revelation 22: 2***

Thou wilt shew me the path of life: in thy presence is fulness of joy: at thy right hand are pleasures for evermore. Psalm 16:11

God be merciful unto us, and bless us, and cause his face to shine upon us. That thy way may be known upon earth, thy saving health among all nations. Psalm 67:1,2

There is a way which seemeth right unto a man, but the end thereof are the ways of death.
Proverbs 14:12

But unto you that fear my name shall the Sun of Righteousness arise with healing in his wings. . . Malachi 4:2

. . . I am fearfully and wonderfully made; marvelous are thy works. Psalm 139:14

Know ye not that ye are the temple of God, and that the Spirit of God dwelleth in you? if any man defile the temple of God, him shall God destroy: for the temple of God is holy, which temple ye are. I Corinthians 3:16,17

I have chosen the way of truth. . . . Grant me thy law graciously. Psalm 119:30, 29

And ye shall know the truth, and the truth shall make you free. If the Son therefore shall make you free, ye shall be free indeed..
John 8:32, 26

For I the Lord thy God will hold thy right hand, saying unto thee, Fear not, I will help thee.
(Also verse 10) Isaiah 41:13
(And Isaiah 41:10; 27:5, and Psalm 119:173)

Whereby are given unto us exceeding great and precious promises, that by these ye might be partakers of the diving nature, having escaped the corruption that is in the world through lust.
(Also verses 1-10) II Peter 1:4

For it is God which worketh in you both to will and to do of His good pleasure.
Philippians 2:13

This is the day which the Lord hath made; we will rejoice and be glad in it. Psalm 118:24
But Daniel purposed in his heart that he would no defile himself with the portion of the king's meat, nor with the wine which he drank:. . . God gave them knowledge and skill in all learning and wisdom:. . . the king. . . found them ten times better than all the magicians and astrologers that were in all his realm.
Daniel:8, 17, 20

Whether therefore ye eat, or drink, or whatsoever ye do, do all to the glory of God.
I Corinthians 10:31

. . . eat in due season, for strength, and not for drunkenness. Ecclesiastes 10:17

A merry heart doeth good like a medicine; but a broken spirit drieth the bones. Proverbs 17:22

Except the Lord build the house, they labour in vain that build it. Psalm 127:1

The sleep of a labouring man is sweet, whether he eat little or much. (Also Genesis 3:19 and Ecclesiastes 3:13) Ecclesiastes 5:12

She openeth her mouth with wisdom; and in her tongue is the law of kindness.
Proverbs 31:26

That our sons may be as plants grown up in their youth, that our daughters may be as corner stones, polished after the similitude of a palace. Psalm 144:12

. . . Add to your faith virtue; and to your virtue knowledge; and to knowledge temperance; and to temperance patience; and to patience godliness; and to godliness brotherly kindness; and to brotherly kindness charity.
I Peter 1:5-7

By the grace of God I am what I am.
I Corinthians 15:10

Now faith is the substance of things hoped for, the evidence of things not see. Hebrews 11:1

Thy faith hath made thee whole. Mark 10:52

. . . Let him ask in faith, nothing wavering.
(Also James 1:3; 2; and 5:14-16) James 1:6

. . . Now abideth faith, hope and charity.
I Corinthians 13:13

There is a way that seemeth right unto a man, but the end thereof are the ways of death.
Proverbs 16:26
. . . Depart; for this is not your rest: because it is polluted, it shall destroy you. Micah 2:10

Come unto me, all ye that labour and are heavy laden, and I will give you rest. Matthew 11:28

Rest in the Lord, wait patiently for him.
Psalm 37:7

In returning and rest shall ye be saved; in quietness and confidence shall be your strength. Isaiah 30:15

God is love. . .For this is the love of God, that we keep his commandments: and his commandments are not grievous. I John 4:8; 5:3

I have loved thee with an everlasting love.
Jeremiah 31:3

Faith which worketh by love. Galatians 5:6

God hath not given us the spirit of fear: but of power, and of love, and of a sound mind.
II Timothy 1:7

Let this mind be in you which was also in Christ Jesus. Philippians 2:5

And with His stripes we are healed. Isaiah 53:5

Bless the Lord, O my soul. . . who forgiveth all thine iniquities, who healeth all thy diseases. .
Psalm 103:3
(Also Psalm 147:3, and Jeremiah 17:15)

. . . Come boldly unto the throne of grace. . . obtain mercy, and find grace to help in time of need. Hebrews 4:16

My grace is sufficient for thee.
II Corinthians 12:9

If MY People. . . shall humble themselves, and pray and seek My face, and turn from their wicked ways; then will I hear from heaven, and will forgive their sin, and will heal their land.
II Chronicles 7:14

For we are saved by hope. Romans 8:24

To him that overcometh will I grant to sit with me in my throne, even as I also overcame. . .
Revelation 3:21

Blessed are they that do His commandments, that they may have right to the tree of life. . .
Revelation 22:14

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# GARDENING FOR HEALTH . . .

> *If my people, which are called by my name, shall humble themselves, and pray, and seek my face, and turn from their wicked ways; then will I hear from heaven, and will forgive their sin, and* ***will heal their land.***
>
> II Chronicles. 7:14

Here are a few suggestions for your gardening pleasure, that will provide soil conditions for healthy plants without the use of animal fertilizers.

**Prepare** soil well. Rototill/spade 6 to 8 inches deep; however, don't work soil to a powder. Rake instead.

If you turn under a cover crop, let the soil stand 2 to 3 weeks before planting.

Clay soils are very dense; modify with sand, compost, cover crops, lawn clippings, etc.

Have your soil **tested**; adapt fertilizers to the needs/conditions of your soil.

**Basic Fertilizers:** Make V-shaped furrows for planting about 5 inches deep.

_______ _______
Ground level
===================
Top soil cover (compressed)
o o o
Seeds
================
$^1/_2$ inch cover of soil
+++++++++++++
Lime (generous amount)
;;;;;;;;;;;;;;
Soybean meal* (moderate amount)
:::::::::
Rock phosphate (moderate amount)
,,,,,,
Potash (small amount)
....
Trace minerals (Small amount)
,.

*Or alfalfa meal/pellets, cottonseed meal, or other organic wastes available in your area.

Build soils by adding organic **compost**. Compost weeds, leaves, lawn clippings, kitchen wastes, wood chips, sawdust,— any organic materials (preferably plant types to minimize disease source).

Organic materials break down more quickly in warmer climates and/or areas with heavy rain-fall; therefore, they do not add much organic material to soils. In cooler climates with plenty of rainfall there is a tendency toward deeper soils and the preservation of organic matter in the soil.

Do not use commercial fertilizers.

Do not use lime on potatoes, blueberries, rhododendrons, nor azaleas.

**Cultivate** to keep weeds down.

**Banding with fertilizer:** Irrigate garden regularly to keep fertilizers moving down with root tips.

**Fruit trees:** Plant trees in full sun.
Prune annually, or at least every other year.

Mulch trees with straw, alfalfa hay, or weeds. These should be placed at the drip line, and kept away from the trunk of the tree.

In the spring put a band of fertilizers, including lime, at the "drip line". Stir into the soil at least 1 inch deep with a potato fork. Be careful not to dig deep enough to break surface feeder roots.

Contributed by M. G. Tillotson

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